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CITY OF



MANCHESTER

REPORT

ON THE .

Health of the City of Manchester

FOR

1949

BY

C. METCALFE BROWN,

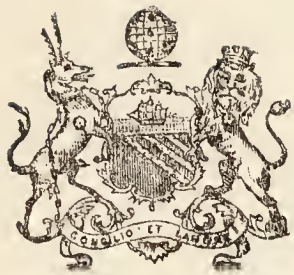
M.D., D.P.H., BARRISTER-AT-LAW,

MEDICAL OFFICER OF HEALTH.



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C. METCALFE BROWN,

M.D., D.P.H., BARRISTER-AT-LAW,

Medical Officer of Health.

61573

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HEALTH DEPARTMENT,
TOWN HALL,
MANCHESTER, 2,

29th June, 1950.

MY LORD MAYOR, ALDERMEN AND MEMBERS OF THE CITY COUNCIL.

I have pleasure in presenting my report on the health of the City for the year 1949.

The Registrar General estimates the civilian population of the City at 699,600, an increase of 6,600 on the figure supplied for 1948, and a decrease of 33,300 on the estimated population for the year 1938.

The natural increase in the population of Manchester (that is the excess of births over deaths) during the year was 4,093.

The number of marriages which took place in Manchester during the year was 7,176, corresponding to a marriage rate of 20·51, as compared with 7,535 and a rate of 21·75 for the previous year.

Live births registered were 13,129, comprising 6,766 males and 6,363 females. Of this number 886, or 6·75 per cent. were illegitimate, as compared with 908 or 6·58 per cent. in 1948, and 557 or 5·05 per cent. in 1938. The birth-rate for the year was 18·77 as compared with 19·90 for the previous year. The birth-rate for England and Wales for 1949 was 16·7.

There were 331 stillbirths registered in 1949, compared with 376 for 1948. The stillbirth rate was 24·59, which is 1·94 lower than 1948.

The total number of civilian deaths recorded in the City in 1949 was 9,036, exceeding the previous year's total of 8,501 by 535. The crude death rate was 12·91, as compared with 12·27 for 1948. The death-rate for England and Wales during 1949 was 11·7. The Registrar General is now supplying a Comparability Factor by which the crude death-rate of an area can be multiplied in order to make it comparable with the crude death-rate of the country as a whole, or with that of any other locality, the crude death-rate of which should be similarly adjusted with its own factor for the purpose. The standardised death-rate for Manchester for 1949 was 14·46. The heaviest mortality was caused by the group including heart disease and other diseases of the circulatory system, which accounted for 2,636 deaths and a death-rate of 3·76 per 1,000 persons living. Cancer (all forms) was responsible for 1,398 deaths, giving a death-rate of 2·00 per 1,000 living, and causing 15 per cent. of the deaths from all causes. The cancer death-rate for England and Wales for 1949 was 1·87 per 1,000 population. Tuberculosis of the respiratory system was the cause of 418 deaths, giving a death-rate of 0·60 per 1,000 living, as against 0·69 for 1948. Deaths from non-pulmonary tuberculosis numbered 38 or 0·05 per 1,000 of the population, the figures for 1948 being 49 and 0·07 respectively. The rate for 1949, both pulmonary and non-pulmonary tuberculosis are the lowest ever recorded in the City. The rates for England and Wales were pulmonary 0·40 and non-pulmonary 0·05.

During 1949 in Manchester 502 infants died within one year of birth, giving an infant mortality rate of 38·24 per 1,000 live births. This rate is 3·88 lower than the previous year; it is the lowest infant death-rate ever recorded for the City. The rate for England and Wales was 32 in 1949. The infant death-rate in Manchester 50 years ago was 205·42 per 1,000 live births.

The maternal mortality rate was 1·19 per 1,000 total births, compared with 0·78 for the previous year. The rate for England and Wales as a whole was 0·98 per 1,000 total births. Of the 16 maternal deaths in the City, 6 were due to puerperal and post-abortive sepsis and 10 to other maternal causes.

The number of notifications of infectious diseases (excepting tuberculosis) which occurred in the City during 1949 was 12,678, as against 18,031 in 1948. Statistical data and reports respecting the various infectious diseases will be found on pages 27 to 38. The number of cases included 6,485 of measles and 2,749 of whooping cough, compared with 10,650 and 2,612 respectively for the previous year. Only 22 true cases of diphtheria were notified during the year. This incidence is the lowest ever recorded for Manchester. There were no deaths from this disease.

The number of children under 15 years of age who received a complete course of diphtheria prophylactic injections was 10,802, and 290 received their first injection. In addition, 1,458 children received a reinforcing course of diphtheria prophylactic. The usual facilities continue to be available for the work of immunisation, and the estimated number of children under 15 years of age who have received a full course of immunisation is 108,550, which gives a percentage of 70·23 of all children in that age group. The percentages in the age groups 0-5 and 5-15 years are 61·76 and 75·77 respectively.

Since 1946 a series of Whooping Cough Vaccine trials have been taking place. In November, 1948, No. 4 trial was commenced, and ended in April, 1949. This was the largest undertaken by the Health Department, and the number of children taking part exceeded by approximately 300 the combined total of the previous three trials. In May, 1949, another trial was commenced and inoculations were completed in September. At the end of 1949 a total of 6,116 children taking part in the whooping cough trials were being visited monthly by a trained investigating staff to collect information required by the Medical Research Council. As a result of these trials a vaccine which has given good results has been found and will be used in further trials in the near future.

A survey of mental deficiency in the City has been carried out for the first time, and shows a recorded incidence of 3·56 per 1,000 of the population. An estimate of mental illness based on hospital admissions of voluntary, temporary and certified patients gives an incidence of 3·6 per 1,000 of the population.

The work of the Health Department continues to expand, particularly in relation to the new duties undertaken by the City Council under Part III of the National Health Service Act, 1946.

This Report gives a full account of the manifold duties of the Department carried out under the direction of the Health Committee and the statistical tables are provided to give an accurate summary of the work done and to bring up to date the records of the Department which have been maintained over a long period of years.

It is again a pleasure to indicate my warm appreciation of the friendly encouragement and strong support of the Chairman and Members of the Health Committee and of the loyal and efficient team work of my colleagues in the Health and other Departments.

I have the honour to be,

My Lord Mayor, Ladies and Gentlemen,

Your obedient servant,

CHARLES METCALFE BROWN,

Medical Officer of Health.

HEALTH COMMITTEE

1949-50

CHAIRMAN—Councillor Mrs. Eveline Hill, J.P.

DEPUTY CHAIRMAN—Councillor W. Chadwick, M.B., CH.B.

THE LORD MAYOR—Alderman Robert Moss, J.P.

Alderman J. E. Burgess

,, F. Farrington

,, Alfred James, J.P.

,, Mary L. Kingsmill Jones
C.B.E., J.P., M.A.,, Hugh Lee, J.P.
(from 1-2-50)

,, W. Somerville, J.P.

,, F. E. Tylecote, J.P., M.D.,
F.R.C.P.

,, T. Walker, J.P.

Councillor Hannah Baldwin, J.P.

,, Nellie Beer, J.P.

Councillor James Bowes

,, P. Buckley

,, J. H. Kearns

,, Mary Knight

,, T. M. Larrad, J.P.

,, A. Littlemore

,, J. McGrath

,, W. Onions, J.P.

,, Lily Thomas

,, R. E. Thomas, J.P.

,, Mabel S. Whittaker, J.P.

HEALTH OFFICERS.

(A) Medical.

- C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law Medical Officer of Health.
- A. M. M. Grierson, O.B.E., M.D., D.P.H.,
F.R.S.E. Deputy Medical Officer of Health.
- L. R. L. Edwards, M.B., B.S., M.R.C.S., Senior Assistant Medical Officer of
L.R.C.P., D.P.H. Health.
- Winifred A. Kane, M.R.C.S., L.R.C.P., Senior Assistant Medical Officer of
D.P.H. Health (Maternity and Child Wel-
fare).
- B. J. Griffiths, B.Sc., M.R.C.S., L.R.C.P., Assistant Medical Officer of Health.
D.P.H.
- R. G. Boyd, M.B., CH.B., D.P.H. Assistant Medical Officer of Health
(Resigned 6.3.1949) (Diphtheria Immunisation.)
- Thomas M. Edward, M.B., CH.B. .. Assistant Medical Officer of Health
(Diphtheria Immunisation.)
- Andrew V. Magee, M.B., CH.B. Assistant Medical Officer of Health—
Part-time (Whooping Cough
Investigation.)
- W. Lee, M.B., CH.B. Tuberculosis Officer —Part-time.

(B) Other Professional.

- Harri Heap, M.Sc., F.R.I.C. Public Analyst.
(Retired 3-7-49)
- Alfred N. Leather, B.Sc., F.R.I.C. Public Analyst.
(from 1-8-49)
- J. Lawson, M.R.SAN.I. Chief Sanitary Inspector.
- Winifred M. L. Selmes, S.R.N., S.C.M.,
D.N. Nursing Organiser.

(c) Lay.

- George Ogden, F.C.C.S. Lay Administrative Officer.
(Retired 30-9-49)

GENERAL STATISTICS

The following are general statistics for the year 1949 :—

Area of the City in Acres	.. .. .	27,255
Census population for the year 1931	{ Males .. 360,976 Females .. 405,402 }	766,378
Registrar General's estimated population for the year 1949.		
(a) civil..	{ Males .. 329,519 Females .. 370,081 }	699,600
(b) total	.. .. .	700,700
Comparability factor	.. .. .	1.12
Rateable value (1st April, 1949)	.. .. .	£6,398,006
Sum represented by a penny rate (estimated)	.. .. .	£25,050
No. of persons per acre	.. .. .	26
Persons married per 1,000 of population	.. .. .	20.51
		Total Males Females
Live Births	{ Legitimate .. 12,243 Illegitimate .. 886 }	{ 6,280 5,963 486 400 }
Live-birth rate per 1,000 of population	.. .. .	18.77
Still-births	{ Males .. 169 Females .. 162 }	331
Still-births rate per 1,000 total (live and still) births	.. .. .	24.59
Deaths	{ Males .. 4,544 Females .. 4,492 }	9,036
Death rate per 1,000 of the estimated resident population	{ Males .. 13.79 Females .. 12.14 }	12.91
Death rate as adjusted by factor	.. .. .	14.46
Excess of registered births over deaths	.. .. .	4,093
Percentage of mortality occurring in public institutions	.. .. .	43.63
<i>Deaths from puerperal causes:—</i>		
		Rate per 1,000 total (live and still) births
Puerperal and post-abortive sepsis	Deaths 6	0.45
Other puerperal causes	.. .. 10	0.74
Total	.. .. 16	1.19
<i>Death Rate of Infants under one year of age:—</i>		
All infants per 1,000 live births	.. .. .	38.24
Legitimate infants per 1,000 legitimate live births	.. .. .	37.65
Illegitimate infants per 1,000 illegitimate live births	.. .. .	46.28
No. of Occupied Structurally Separate Dwellings at the Census in April, 1931	.. .. .	177,430
No. of Inhabited Houses according to Rate Books	.. .. .	200,900
No. of persons per occupied Structurally Separate Dwelling (Census 1931)	.. .. .	4.32
No. of persons per house, 1949 (based on 202,638 houses connected with the water supply within the City)	.. .. .	3.45
No. of new houses erected during 1949:—		
By Local Authority (Houses 1,196, Flats 284,	.. .. .	1,480
By other bodies or persons	.. .. .	307
	.. .. .	1,787

The City of Manchester is one of the largest centres in the industrial north, and almost two million people reside in the forty adjacent townships. Road and rail communications, and the Port of Manchester, have combined to retain the City's important position in the world of industry and commerce and its business links with other lands.

Comprehensive housing schemes are gradually causing the poorer centralised inhabited sites to disappear, and to the north and south of the City there are now large self-contained housing estates, which have been quoted as examples of the best modern methods.

The surface level of the City varies from about 80 feet in the south to 300 feet in the north, and it is intersected by the five rivers, Mersey, Medlock, Irwell, Irk, and Tib. The latter, a small stream, has been culverted.

The City is important as a Hospital Centre and Medical School. Its University claims some prominence in the realm of research, especially in the field of Physics. Nearly 60,000 persons are employed in the Engineering and Clothing trades in the City, which is an important focal point in the production of cotton, steel, coal, rubber, and chemicals.

METEOROLOGY, 1949.

Means of the Monthly Readings from Whitworth Observatory, Manchester.

	Wet Bulb	Dry Bulb	Mean Maximum Temperature	Mean Minimum Temperature	Mean Temperature	Total Rainfall (inches)	Total Number of Wet Days	Total Hours of Sunshine	Number of Days on which Fog was noted at 09.00 G.M.T.
January	40.3	42.6	47.0	37.6	42.3	2.07	19	28.52	14
February	39.7	43.6	49.5	37.3	43.4	1.68	16	81.76	4
March	38.1	40.6	48.4	36.2	42.3	1.77	13	110.98	9
April	46.4	49.9	57.7	44.1	50.9	2.64	17	134.40	0
May	48.5	53.0	61.8	45.0	53.4	3.47	17	208.32	0
June	55.1	60.6	70.4	51.5	61.0	0.83	6	239.70	0
July	57.7	63.6	74.3	55.6	64.9	1.76	12	174.64	0
August	57.7	62.4	71.7	55.1	63.4	2.68	12	185.69	0
September	57.7	61.7	69.5	55.3	62.4	0.56	6	143.40	2
October	50.2	52.8	59.9	48.3	54.1	2.89	17	72.23	8
November	43.0	44.9	49.6	41.5	45.5	4.65	20	22.80	16
December	40.6	42.6	47.5	38.6	43.0	4.93	21	26.35	9
YEAR ..	47.9	51.5	58.9	45.5	52.2	29.93	176	1428.79	62
Means						Totals			

The Meteorological Station situated at the Corporation Cleansing Yard, 299, Oldham Road, which had been in operation since 1892, was dismantled in June, 1938. This was necessary on account of further accommodation being required for building purposes of the Cleansing Committee. After communication with the Air Ministry they considered that the records taken at the Meteorological Station connected with the Manchester University in Whitworth Park were sufficient for their purpose.

Birth Rate, Death Rate, and Analysis of Mortality, 1949, in England and Wales,
Grouped Areas, London and Manchester.

	BIRTH RATE PER 1,000 TOTAL POPULATION		ANNUAL DEATH RATE PER 1,000 POPULATION										RATE PER 1,000 LIVE BIRTHS	
			All Causes	Typhoid and Paratyphoid	Smallpox	Tuberculosis	Acute Poliomyelitis and Polioencephalitis	Whooping Cough	Diphtheria	Influenza	Pneumonia	Diarrhoea and Enteritis (under two years)	Total Deaths (under one year)	
	Live Births	Still Births												
England and Wales	16.7	0.39	11.7	0.00	0.00	0.45	0.01	0.01	0.00	0.15	0.51	3.0	32	
126 County Boroughs and Great Towns, including London..	18.7	0.47	12.5	0.00	0.00	0.52	0.02	0.02	0.00	0.15	0.56	3.8	37	
148 Smaller Towns, estimated Resident Population 25,000 to 50,000 at Census	18.0	0.40	11.6	0.00	—	0.42	0.02	0.01	0.00	0.14	0.49	2.4	30	
London Administrative County	18.5	0.37	12.2	0.00	—	0.52	0.01	0.01	0.00	0.11	0.59	1.7	29	
Manchester	18.77	0.47	12.9	—	—	0.65	0.01	0.04	—	0.15	0.57	4.3	38	

A dash (—) signifies that there were no deaths.

CAUSES OF DEATH, 1949.

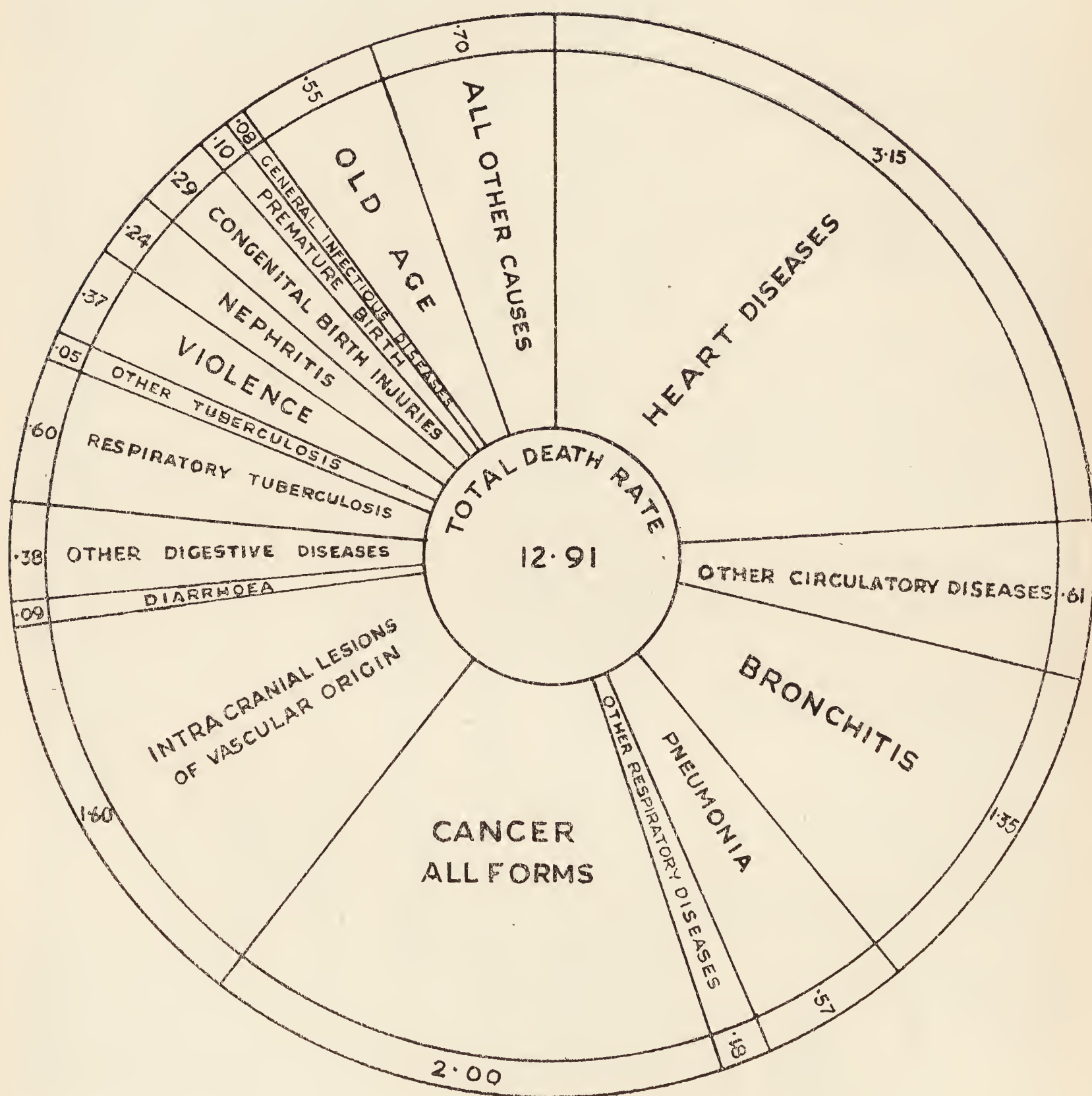
Registrar General's Return.

Manchester.

CAUSES OF DEATH	AGES AT DEATH								
	Male	Female	At All Ages	Under 1 Year	1 Year and Under 5 Years	5 Years and Under 15 Years	15 Years and Under 45 Years	45 Years and Under 65 Years	65 Years and Over
Typhoid and Paratyphoid Fevers..	—	—	—	—	—	—	—	—	—
Cerebro-Spinal Fever	4	4	8	5	1	—	2	—	—
Scarlet Fever	—	—	—	—	—	—	—	—	—
Whooping Cough	16	13	29	19	9	1	—	—	—
Diphtheria.. .. .	—	—	—	—	—	—	—	—	—
Tuberculosis of Respiratory System	251	167	418	1	4	—	220	150	43
Other forms of Tuberculosis	21	17	38	3	7	4	14	6	4
Syphilitic Diseases	28	11	39	1	—	—	3	14	21
Influenza	52	56	108	5	3	1	2	32	65
Measles	3	4	7	1	6	—	—	—	—
Acute Poliomyelitis and Polioen- cephalitis	3	5	8	—	3	1	3	1	—
Acute Infectious Encephalitis ..	2	3	5	—	—	—	3	1	1
Cancer of Buccal Cavity and Oesophagus (M.), Uterus (F.) ..	53	63	116	—	—	—	6	48	62
Cancer of Stomach and Duodenum	144	120	264	—	—	—	16	92	156
Cancer of Breast	—	128	128	—	—	—	12	68	48
Cancer of All other Sites.. ..	514	376	890	1	2	2	60	416	409
Diabetes	13	35	48	—	1	—	5	10	32
Intra-Cranial Vascular Lesions ..	404	606	1010	1	—	2	13	222	772
Heart Disease	1092	1114	2206	—	—	3	119	519	1565
Other Diseases of Circulatory System	203	227	430	—	—	—	8	78	344
Bronchitis	554	389	943	12	2	—	22	303	604
Pneumonia	228	168	396	91	14	4	32	87	168
Other Respiratory Diseases	68	59	127	3	1	—	13	51	59
Ulcer of Stomach and Duodenum..	53	23	76	—	—	—	6	32	38
Diarrhœa (under 2 years)	35	25	60	57	3	—	—	—	—
Appendicitis	18	12	30	1	2	—	7	10	10
Other Digestive Diseases	74	85	159	3	4	3	17	56	76
Nephritis	69	98	167	—	—	2	28	48	89
Puerperal and Post-Abortive Sepsis	—	6	6	—	—	—	6	—	—
Other Maternal Causes	—	10	10	—	—	—	10	—	—
Premature Birth	40	30	70	70	—	—	—	—	—
Congenital Malformations, Birth Injuries, and Infantile Diseases	101	101	202	175	6	4	10	6	1
Suicide	60	28	88	—	—	—	22	42	24
Road Traffic Accidents	44	24	68	—	9	9	17	16	17
Other Violent Causes	69	29	98	11	3	11	31	22	20
All other Causes	328	456	784	42	15	12	68	145	502
Totals.. ..	4544	4492	9036	502	95	59	775	2475	5130

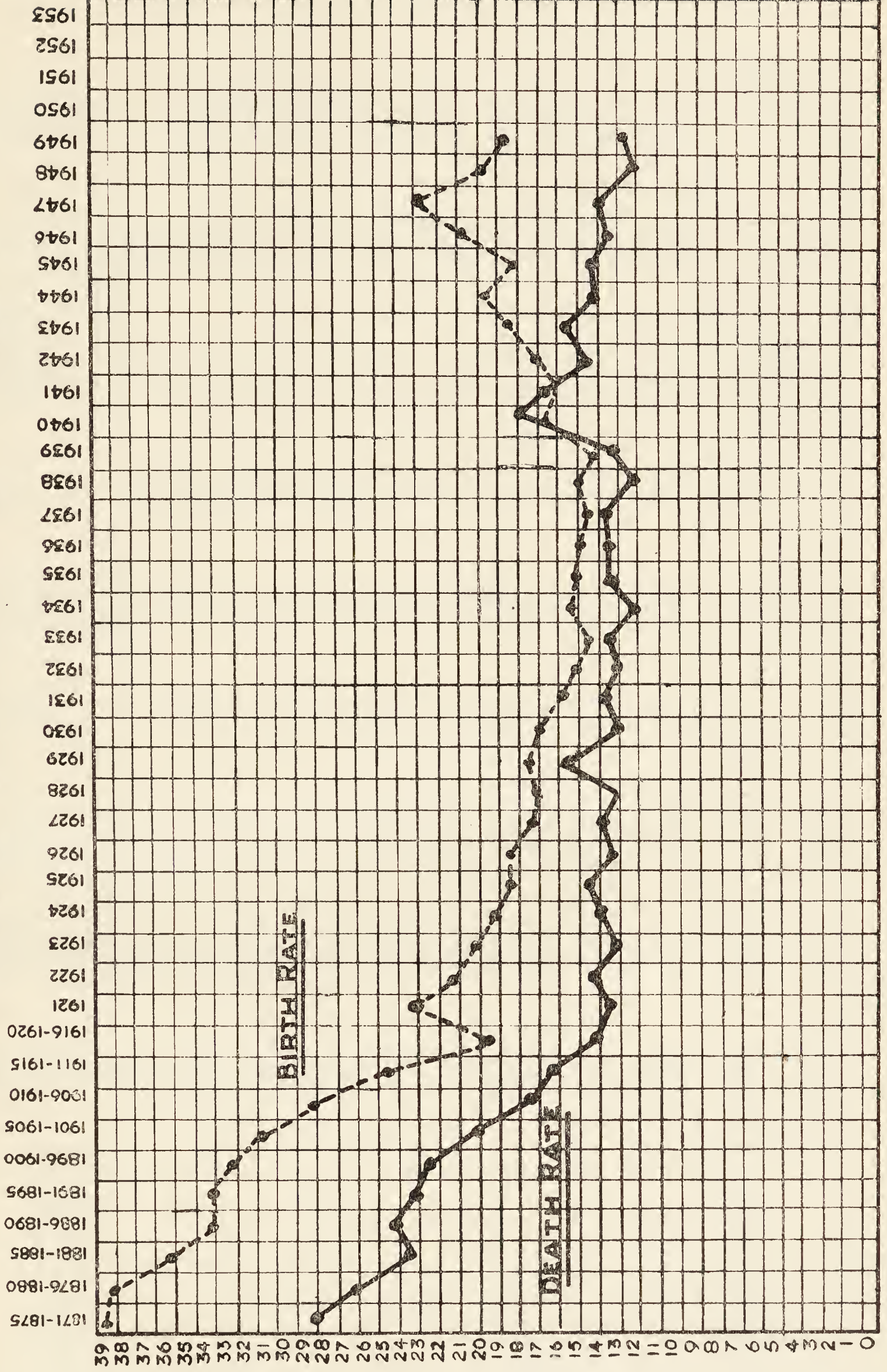
A table showing the mortality rates due to various causes, etc., from 1911 onwards appears at the end of the report.

CITY OF MANCHESTER

Proportion of Deaths from Principal Causes
to Total Deaths—1949

CITY OF MANCHESTER

BIRTH & DEATH RATES PER 1000 OF THE POPULATION



Manchester, 1949—Ward Population, Area, Density, Births and Deaths, with Birth, Death, and Infant Mortality Rates.

(Figures compiled by Medical Officer of Health for 52 Weeks.)

WARDS	Estimated populations	Area in acres	Persons per acre	Births (Live)		Deaths		Natural rate of Increase	Deaths under 1 year per 1,000 births
				Total	Rate per 1,000 pop.	Total	Rate per 1,000 pop.		
CITY OF MANCHESTER...	699600	27255	25.67	13129	18.77	9024	12.90	+ 5.87	38.24
All Saints'	13103	300	43.68	365	27.86	192	14.65	+ 13.21	41.10
Ardwick ..	18260	426	42.86	435	23.82	246	13.47	+ 10.35	34.18
Beswick ..	21905	254	86.24	481	21.96	277	12.65	+ 9.31	39.50
Blackley ..	25605	1158	24.70	556	19.44	304	10.63	+ 8.81	39.57
Bradford ..	25849	790	32.72	492	19.03	301	11.64	+ 7.39	30.49
Cheetham..	22475	555	40.50	401	17.84	277	12.32	+ 5.52	24.94
Chorlton-cum-Hardy	42420	1666	25.46	602	14.19	557	13.13	+ 1.06	24.92
Collegiate Church ..	8285	446	18.57	203	24.50	160	19.31	+ 5.19	59.11
Collyhurst..	12542	232	54.06	426	33.97	184	14.67	+ 19.30	30.52
Crumpsall..	24744	2203	11.23	403	16.29	298	12.04	+ 4.25	47.15
Didsbury ..	31499	2354	13.38	426	13.52	403	12.79	+ 0.73	21.13
Exchange ..	86	61	1.41	—	—	3	34.88	— 34.88	—
Gorton North ..	22211	604	36.77	317	11.27	255	11.48	+ 2.79	28.39
Gorton South ..	26765	628	42.62	393	14.68	338	12.63	+ 2.05	20.36
Harpurhey ..	18769	344	54.56	396	21.10	233	12.41	+ 8.69	42.93
Levenshulme ..	19995	606	33.00	256	12.80	246	12.30	+ 0.50	11.72
Longsight ..	25958	593	43.77	355	13.68	321	12.37	+ 1.31	42.25
Medlock Street..	15664	212	73.89	415	26.49	221	14.11	+ 12.38	40.96
Miles Platting ..	14835	313	47.40	327	22.04	171	11.53	+ 10.51	27.52
Moston ..	29703	1231	24.13	478	16.09	360	12.12	+ 3.97	31.38
Moss Side East ..	16972	241	70.42	442	26.04	267	15.73	+ 10.31	76.92
Moss Side West ..	19613	267	73.46	375	19.12	288	14.68	+ 4.44	48.00
New Cross ..	12897	303	42.56	282	21.87	227	17.60	+ 4.27	46.10
Newton Heath ..	21175	1005	21.07	379	17.90	305	14.40	+ 3.50	36.94
Openshaw ..	18763	482	38.93	362	19.29	248	13.22	+ 6.07	41.44
Oxford ..	196	167	1.17	3	15.31	12	61.22	— 45.91	—
Rusholme ..	20456	806	25.38	297	14.52	275	13.44	+ 1.08	53.87
St. Ann's...	18	55	0.33	1	55.56	—	—	+ 55.56	—
St. Clement's ..	768	181	4.24	14	18.23	7	9.11	+ 9.12	71.43
St. George's ..	16424	266	61.74	427	26.00	251	15.28	+ 10.72	46.84
St. John's ..	1561	199	7.84	26	16.66	37	23.70	— 7.04	115.38
St. Luke's ..	20452	316	64.72	525	25.67	336	16.43	+ 9.24	43.81
St. Mark's ..	19711	340	57.97	410	20.80	269	13.65	+ 7.15	56.10
St. Michael's ..	11731	243	48.28	319	27.19	182	15.51	+ 11.68	43.89
Withington ..	50050	1841	27.19	604	12.07	530	10.59	+ 1.48	39.73
Wythenshawe ..	45140	5567	8.11	936	20.74	443	9.81	+ 10.93	28.85

Specified Causes, and (c) Infant Mortality; also the Percentages to Total Deaths of Inquest Cases and of Deaths in Public Institutions; also Quinquennial Averages, 1871—1949.

Year	Estimated Population (Mean)	Marriage Rate per 1,000 persons living	Annual Rates per 1,000 persons living										Percentage to Total Deaths		Infant Mortality	Year		
			Births	Deaths (all causes)	Smallpox	Measles	Scarlet Fever	Diphtheria	Whooping Cough	Typhus Fever	Typhoid and Paratyphoid Fever	Simple Continued Fever	Diarrhoea	Violence			Inquest Cases	Deaths in Public Institutions
1871-1875	477,344	24.6	38.9	28.3	0.26	0.64	1.08	0.08	0.78	0.14	0.43	0.21	1.95	0.94	7.2	13.4	198	.. 1871-1875
1876-1880	509,802	18.6	38.7	26.2	0.24	0.53	1.07	0.13	0.84	0.08	0.29	0.11	1.26	0.89	7.5	14.3	172	.. 1876-1880
1881-1885	542,746	17.9	35.1	23.6	0.04	0.71	0.48	0.10	0.68	0.05	0.20	0.03	0.99	0.72	7.0	15.9	175	.. 1881-1885
1886-1890	575,630	16.6	33.4	24.6	0.02	0.83	0.50	0.32	0.54	0.02	0.30	0.01	1.08	0.78	6.9	17.7	183	.. 1886-1890
1891-1895	517,801	16.9	33.2	23.6	0.03	0.62	0.26	0.27	0.64	0.00	0.24	0.01	1.19	0.77	7.1	19.2	186	.. 1891-1895
1896-1900	539,599	18.2	32.5	22.7	..	0.89	0.20	0.13	0.53	0.00	0.18	0.01	1.69	0.73	7.1	20.2	192	.. 1896-1900
1901-1905	554,355	17.4	30.9	20.1	0.01	0.55	0.19	0.22	0.41	0.00	0.13	0.00	1.15	0.72	7.1	24.4	173	.. 1901-1905
1906-1910	660,049	17.0	28.1	17.7	..	0.54	0.16	0.17	0.37	0.00	0.10	0.00	0.76	0.68	7.4	27.3	147	.. 1906-1910
1911-1915	720,565	17.9	25.3	16.5	..	0.51	0.12	0.14	0.26	..	0.06	..	0.83	0.66	7.4	29.2	133	.. 1911-1915
1916-1920	B 746,909 D 699,325	18.4	19.9	15.7	..	0.28	0.04	0.08	0.24	..	0.02	0.00	0.33	0.55	6.3	29.7	105	.. 1916-1920
1921-1925	751,080	16.8	20.6	13.9	..	0.25	0.07	0.10	0.21	..	0.01	..	0.31	0.45	5.7	37.4	96	.. 1921-1925
1926-1930	752,840	16.6	17.5	13.9	..	0.18	0.02	0.11	0.14	..	0.01	..	0.29	0.50	4.8	42.8	88	.. 1926-1930
1931-1935	759,180	17.1	15.3	13.4	..	0.11	0.02	0.10	0.08	..	0.00	..	0.15	0.54	4.8	48.3	77	.. 1931-1935
1936-1940	712,660	21.4	15.2	14.3	..	0.07	0.00	0.09	0.04	..	0.00	..	0.10	0.70	4.9	52.0	71	.. 1936-1940
1941-1945	608,256	20.9	18.1	15.0	..	0.02	0.00	0.04	0.06	..	0.00	..	0.15	0.68	5.1	50.7	64	.. 1941-1945
1945	623,480	23.8	18.2	14.4	..	0.01	..	0.02	0.04	..	0.00	..	0.14	0.50	4.2	46.5	56	.. 1945
1946	668,660	22.3	20.9	13.5	..	0.00	..	0.02	0.05	..	0.00	..	0.25	0.44	3.9	46.1	64	.. 1946
1947	685,560	22.2	23.1	13.8	..	0.03	..	0.00	0.03	..	..	..	0.33	0.42	3.6	46.7	60	.. 1947
1948	693,000	21.8	19.9	12.3	..	0.02	..	0.00	0.03	..	0.00	..	0.08	0.40	3.8	47.7	42	.. 1948
1949	699,600	20.5	18.8	12.9	..	0.01	..	..	0.04	..	..	..	0.09	0.36	3.2	43.6	38	.. 1949

The populations and rates prior to 1891 are those for the Unions of Manchester, Chorlton, and Prestwich, which have been taken as approximately representing "Manchester." The City was extended to include Moss Side and Withington in November, 1904, Gorton and Levenshulme in November, 1909, and Wythenshawe April, 1931.

From 1911 population and rates based on Registrar-General's returns.

(B)—Population for calculating birth-rates

(D)—Population for calculating death-rates

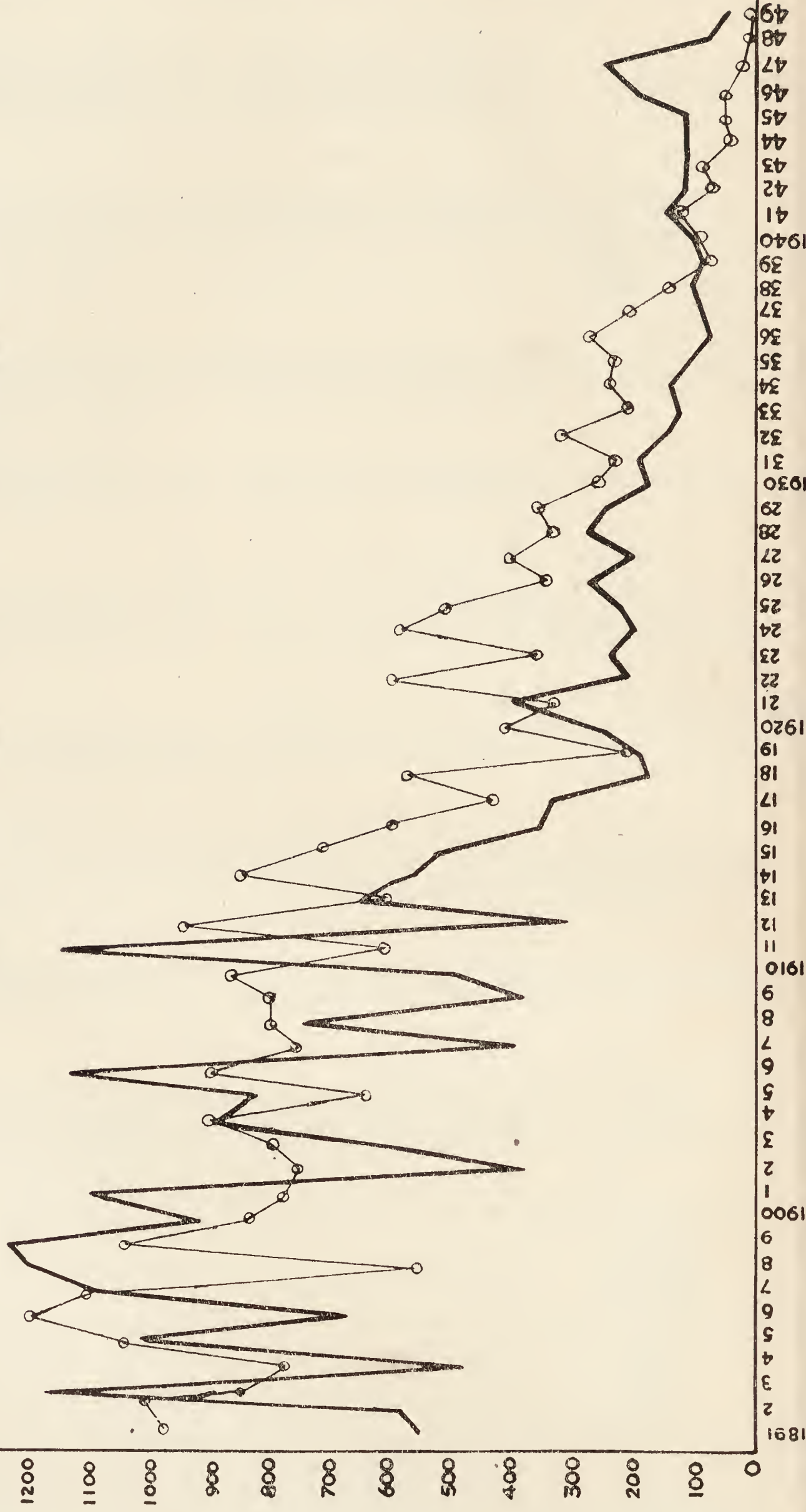
..—Signifies there were no deaths.

CITY OF MANCHESTER

DEATHS FROM VARIOUS DISEASES [ALL AGES]

DIARRHOEA AND ENTERITIS

WHOOPING COUGH DIPHTHERIA AND SCARLET FEVER



Manchester—Annual Rates of Mortality from certain causes of Death.

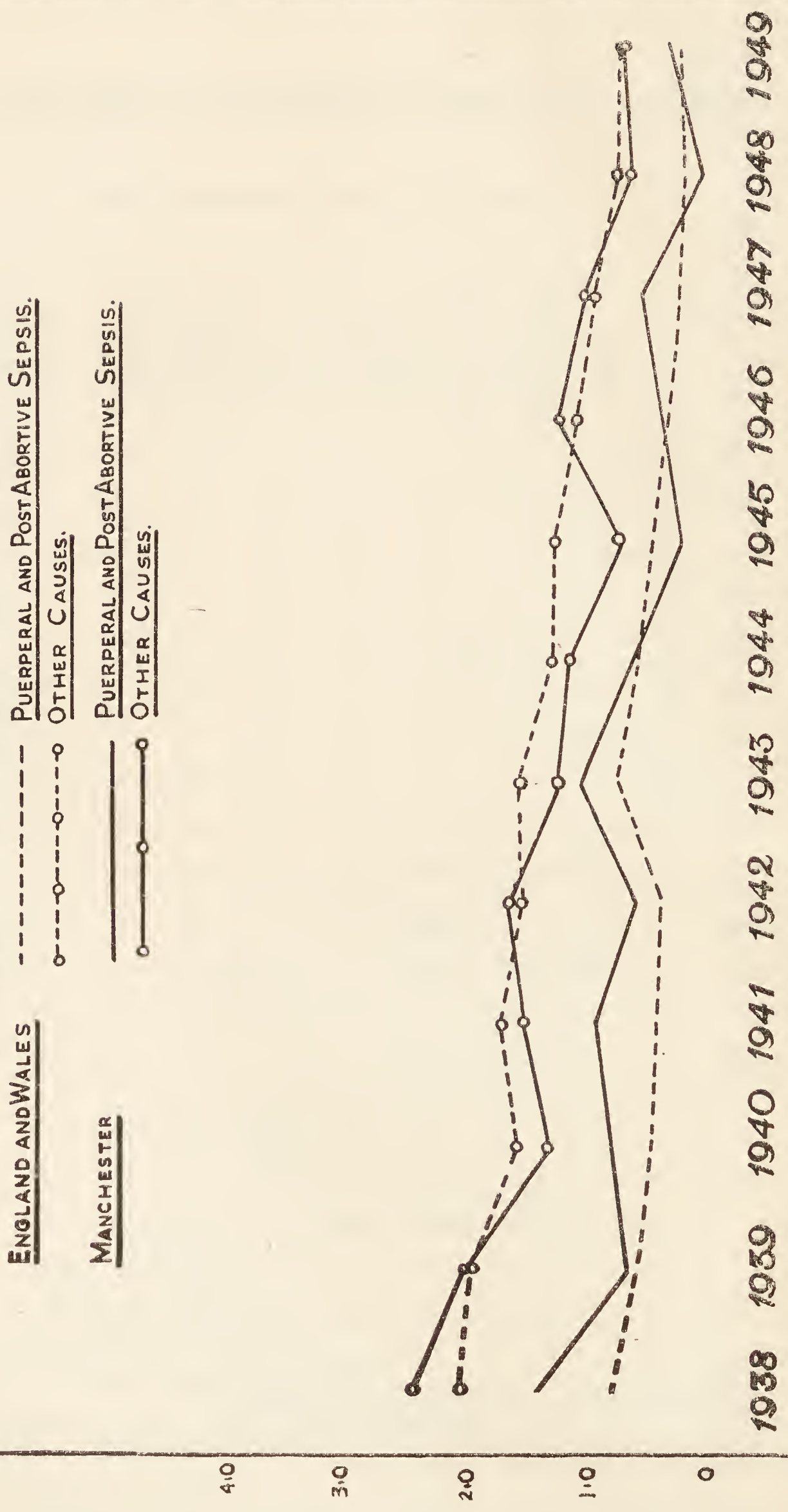
YEAR		ANNUAL RATES PER 1,000 PERSONS LIVING									RATES PER 1,000 BIRTHS*	
		Cancer	Tuberculosis of Respiratory System	Other Forms of Tuberculosis	Diseases of Nervous System	Diseases of Heart	Diseases of Respiratory System	Diseases of Digestive System	Nephritis	Diseases of Generative System	Puerperal and Post Abortive Sepsis	Other Puerperal Causes
1881-1885 ..		0.50	2.42	0.92	3.28	1.37	5.41	1.23	..	0.08	3.03	1.99
1886-1890 ..		0.64	2.24	0.95	3.09	1.73	5.76	1.23	..	0.08	3.22	2.13
1891-1895 ..		0.62	2.09	0.97	1.74	2.53	5.56	1.07	..	0.07	2.75	3.42
1896-1900 ..		0.73	2.04	0.82	1.32	2.54	5.03	1.04	..	0.09	1.55	1.51
1901-1905 ..		0.80	1.91	0.71	1.17	1.74	4.24	1.87	0.41	0.08	1.21	1.76
1906-1910 ..		0.88	1.66	0.59	0.95	1.72	3.77	1.42	0.44	0.07	1.28	1.49
1911-1915 ..		1.04	1.67	0.47	0.79	1.24	3.62	1.44	0.46	0.09	1.42	2.56
1916-1920 ..		1.21	1.61	0.41	0.54	1.21	3.41	0.84	0.41	0.06	1.70	2.14
1921-1925 ..		1.36	1.27	0.30	0.51	1.39	3.11	0.74	0.34	0.07	1.83	2.10
1926-1930 ..		1.50	1.19	0.21	0.48	1.81	2.65	0.75	0.36	0.07	2.14	2.63
1931-1935 ..		1.67	1.02	0.16	0.41	2.50	1.97	0.55	0.37	0.05	* 1.59	* 2.20
1936-1940 ..		1.81	0.93	0.14	0.38	3.10	2.07	0.53	0.37	0.06	1.11	2.40
1941-1945 ..		2.10	0.93	0.14	†1.62	3.10	2.39	0.65	0.37	0.03	0.71	1.30
1945		2.08	0.80	0.13	1.60	2.93	2.33	0.61	0.34	0.03	0.25	0.77
1946		1.92	0.69	0.10	1.43	2.81	2.11	0.68	0.32	0.00	0.35	1.25
1947		2.05	0.66	0.09	1.59	3.13	2.11	0.77	0.33	0.07	0.55	0.99
1948		2.00	0.69	0.07	1.47	2.77	1.80	0.50	0.28	0.02	0.07	0.71
1949		2.00	0.60	0.05	1.60	3.15	2.10	0.47	0.24	0.02	0.45	0.74

* Maternal Mortality rates until 1930 were based on per 1,000 Live Births. From 1931 onwards these rates were calculated on per 1,000 Live and Stillbirths.

† Diseases of Nervous System includes Cerebral Hæmorrhage from 1941. From 1911 rates are based on Registrar General's Returns.

MATERNAL MORTALITY

MORTALITY PER 1000 LIVE AND STILLBIRTHS



WARDS	ESTIMATED POPULATION	WHOOPIING COUGH		DIPHTHERIA		MEASLES		TUBERCULOSIS ALL FORMS		SYPHILITIC DISEASES		DISEASES OF HEART AND CIRCULATORY SYSTEM		CANCER ALL SITES		PNEUMONIA		BRONCHITIS		DIGESTIVE SYSTEM		URINARY SYSTEM		ALL CAUSES	
		Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate	Deaths	Rate
CITY OF MANCHESTER..	699600	29	·04	—	—	7	·01	456	·65	41	·06	2587	3·70	1360	1·94	396	·57	947	1·35	332	·47	257	·37	9024	12·90
All Saints'	13103	2	·15	—	—	—	—	21	1·60	1	·08	43	3·28	24	1·83	17	1·30	26	1·98	5	·38	6	·46	192	14·65
Ardwick	18260	—	—	—	—	—	—	15	·82	—	—	61	3·34	37	2·03	10	·55	25	1·37	10	·55	8	·44	246	13·47
Beswick	21905	—	—	—	—	—	—	24	1·09	3	·14	85	3·88	29	1·32	12	·55	38	1·74	11	·50	8	·36	277	12·65
Blackley	28605	1	·03	—	—	—	—	12	·42	—	—	79	2·76	63	2·20	14	·49	28	·98	9	·32	9	·32	304	10·63
Bradford	25849	1	·04	—	—	1	·04	12	·46	—	—	96	3·71	52	2·01	10	·39	31	1·20	9	·35	11	·43	301	11·64
Cheetham	22475	1	·04	—	—	—	—	14	·62	1	·04	76	3·38	38	1·69	9	·40	27	1·20	12	·54	7	·31	277	12·33
Chorlton-cum-Hardy	42420	1	·02	—	—	—	—	23	·54	1	·02	180	4·24	95	2·24	16	·38	35	·83	22	·52	20	·47	557	13·13
Collegiate Church	8285	2	·24	—	—	—	—	13	1·57	3	·36	59	7·12	18	2·17	6	·73	14	1·69	3	·36	5	·60	160	19·31
Collyhurst	12542	1	·08	—	—	1	·08	14	1·12	3	·24	43	3·43	24	1·91	11	·88	32	2·55	4	·32	2	·16	184	14·67
Crumpsall	24744	2	·08	—	—	—	—	9	·37	1	·04	100	4·04	46	1·86	7	·28	24	·97	15	·61	6	·24	298	12·04
Didsbury	31499	—	—	—	—	—	—	9	·29	3	·10	129	4·10	64	2·03	12	·38	22	·70	10	·32	13	·41	403	12·79
Exchange	86	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	11·63	—	—	—	—	1	11·63	3	34·88
Gorton North	22211	—	—	—	—	1	·05	6	·27	2	·09	69	3·11	52	2·34	13	·59	35	1·57	8	·36	9	·41	255	11·48
Gorton South	26765	—	—	—	—	—	—	17	·64	2	·07	90	3·36	46	1·72	14	·52	46	1·72	7	·26	9	·34	338	12·63
Harpurhey	18769	1	·05	—	—	—	—	15	·80	1	·05	67	3·57	33	1·76	8	·43	24	1·28	9	·48	9	·48	233	12·41
Levenshulme	19995	—	—	—	—	—	—	6	—	—	·30	84	4·20	36	1·80	5	·25	25	1·25	12	·60	14	·70	246	12·30
Longsight	25958	—	—	—	—	—	—	14	·54	3	·12	101	3·89	45	1·73	12	·46	34	1·31	16	·62	9	·35	321	12·37
Medlock Street	15664	—	—	—	—	1	·06	12	·77	2	·13	47	3·00	29	1·85	21	1·34	33	2·11	9	·57	5	·32	221	14·11
Miles Platting	14835	2	·13	—	—	—	—	12	·81	—	—	36	2·43	25	1·69	12	·81	34	2·29	8	·54	2	·13	171	11·53
Moston	29703	—	—	—	—	—	—	13	·44	1	·03	117	3·94	58	1·95	9	·30	44	1·48	10	·34	8	·27	360	12·12
Moss Side East	16972	—	—	—	—	—	—	10	·59	1	·06	70	4·12	31	1·83	20	1·18	31	1·83	9	·53	10	·59	267	15·73
Moss Side West	19613	4	·20	—	—	1	·05	11	·56	1	·05	77	3·93	38	1·94	18	·92	23	1·17	8	·41	13	·66	288	14·69
New Cross	12897	—	—	—	—	—	—	12	·93	2	·16	65	5·04	35	2·71	12	·93	35	2·71	8	·62	6	·47	227	17·60
Newton Heath	21175	—	—	—	—	—	—	14	·66	2	·09	108	5·10	50	2·36	9	·43	38	1·80	3	·14	11	·52	305	14·40
Openshaw	18763	2	·11	—	—	—	—	19	1·01	2	·11	77	4·10	35	1·87	9	·48	17	·91	12	·64	4	·21	248	13·22
Oxford	196	—	—	—	—	—	—	1	5·10	—	—	3	15·31	4	20·41	—	—	2	10·20	—	—	—	—	12	61·22
Rusholme	20456	1	·05	—	—	1	·05	14	·69	1	·05	74	3·62	41	2·00	8	·39	18	·88	15	·73	5	·24	275	13·44
St. Ann's	18	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	9·12
St. Olement's	768	—	—	—	—	—	—	1	1·30	—	—	2	2·60	1	1·30	—	—	—	—	—	—	—	—	251	15·28
St. George's	16424	—	—	—	—	—	—	9	·55	—	—	71	4·32	40	2·44	19	1·16	32	1·95	10	·61	5	·30	37	23·70
St. John's	1561	—	—	—	—	—	—	2	1·28	2	1·28	10	6·41	9	5·77	2	1·28	2	1·28	—	—	—	—	336	16·43
St. Luke's	20452	—	—	—	—	—	—	18	·88	1	·05	88	4·30	53	2·59	23	1·13	39	1·91	15	·73	6	·29	269	13·65
St. Mark's	19711	1	·05	—	—	1	·05	14	·71	1	·05	60	3·04	33	1·67	15	·76	34	1·73	17	·86	6	·31	182	15·51
St. Michael's	11731	—	—	—	—	—	—	8	·68	—	—	47	4·01	19	1·62	8	·68	31	2·64	3	·26	3	·26	530	10·59
Withington	50050	2	·04	—	—	—	—	23	·46	1	·02	157	3·14	90	1·80	18	·36	41	·82	19	·38	12	·24	443	9·83
Wythenshawe	45140	5	·11	—	—	—	—	39	·86	—	—	116	2·57	67	1·48	16	·35	27	·60	24	·53	15	·33	—	—

Manchester, 1949—Causes of Death in Infancy and Childhood.

(Figures compiled by Medical Officer of Health for 52 weeks)

CAUSES OF DEATH	UNDER ONE YEAR			Total under One Year	ONE AND UNDER FIVE YEARS				Total under Five Years
	Under 3 months	3-6 months	6-12 months		1-	2-	3-	4-	
All Causes	345	80	77	502	36	24	21	14	597
Chicken Pox.....	...	...	...	...	...	...	...	...	...
Measles .....	...	...	1	1	3	3	...	...	7
Scarlet Fever.....	...	...	...	...	...	...	...	...	...
Whooping Cough	7	4	8	19	6	1	1	...	27
Diphtheria.....	...	...	...	...	...	...	...	...	...
Erysipelas .....	...	...	...	...	...	...	...	...	...
Syphilis	1	...	...	1	...	...	...	...	1
Tabes Mesenterica and Tuberc. Peritonitis	...	...	...	...	...	...	...	...	...
Tubercular Meningitis .....	...	...	1	1	2	...	1	1	5
Tuberculosis (Other) .....	...	3	...	3	1	1	3	3	11
Rickets .....	...	...	...	...	...	...	...	...	...
Premature Birth	72	...	...	72	...	...	...	...	72
Injury at Birth and Congen. Malformations	89	8	7	104	...	2	2	1	109
Atelectasis	46	1	...	47	...	...	...	...	47
Others of early infancy.....	22	3	2	27	...	...	...	...	27
Convulsions	13	2	2	17	...	...	...	...	17
Meningitis	2	1	2	5	...	...	...	...	5
Nervous Diseases (Other)...	2	1	3	6	...	3	2	...	11
Diarrhoeal Diseases	25	21	11	57	3	...	...	...	60
Gastritis.....	...	...	...	...	...	...	...	...	...
Digestive Diseases (Other)	3	1	3	7	2	2	1	1	13
Bronchitis	5	3	4	12	1	...	...	1	14
Pneumonia	48	24	19	91	10	3	2	...	106
Respiratory Diseases (Other)	...	1	1	2	2	...	...	...	4
Found Dead in Bed (over- laid)	1	...	...	1	...	...	...	...	1
Suffocation .....	...	2	1	3	...	...	...	...	3
Violence (Other forms).....	3	1	1	5	2	2	4	4	17
Ill-defined Causes	1	...	...	1	...	...	...	...	1
Other Causes	5	4	11	20	4	7	5	3	39

INFANT MORTALITY.

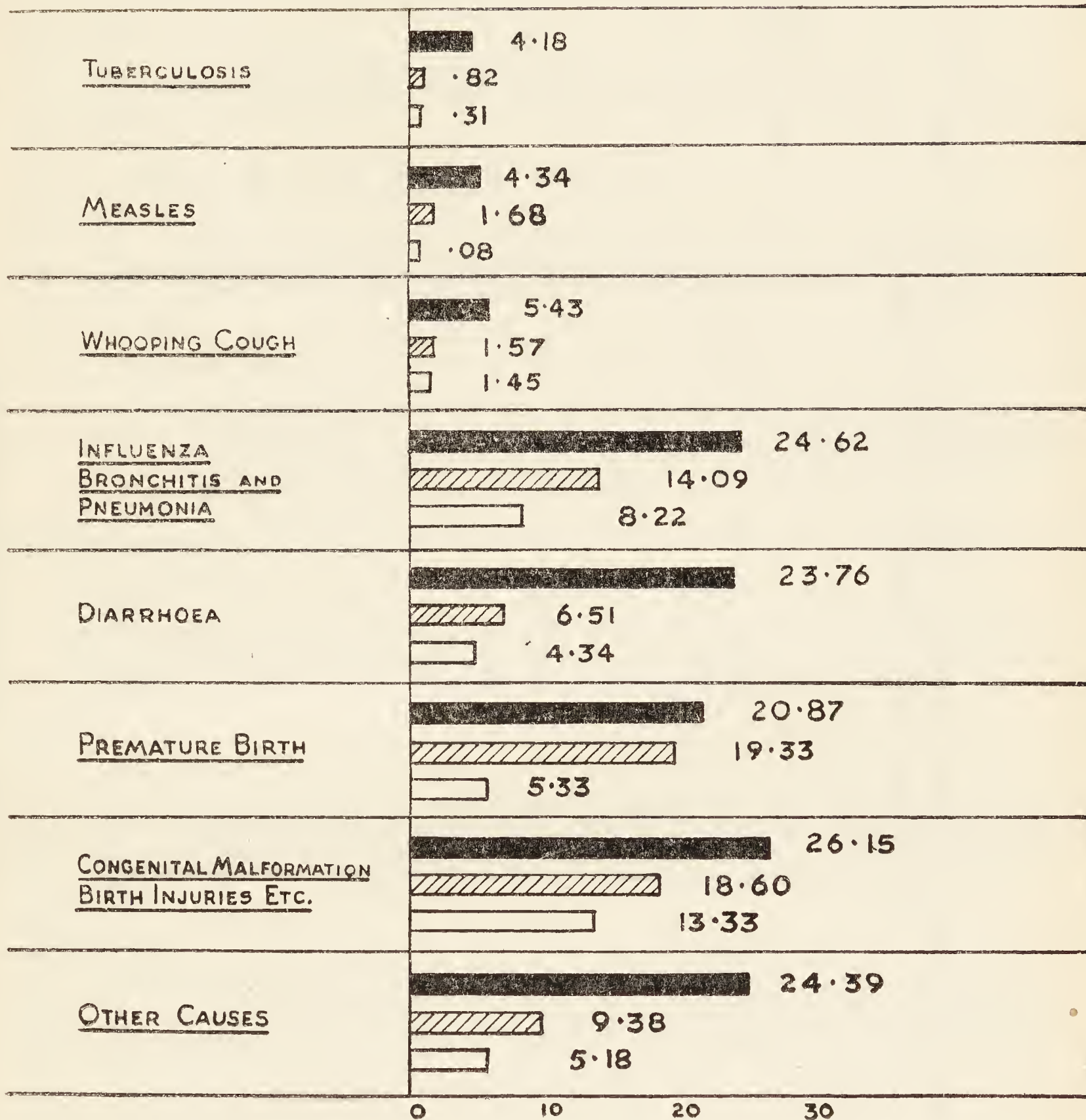
Deaths from Various Causes per 1,000 Live Births.

Calculated from Registrar General's Return.

Manchester.

Cause of Death	Rate per 1,000 Live Births					
	1944	1945	1946	1947	1948	1949
All causes	53.59	55.80	63.71	59.76	42.12	38.2
Typhoid and Paratyphoid Fevers ..	..	..	..	..	..	..
Cerebro Spinal Fever	0.16	0.44	0.29	0.13	0.22	0.38
Scarlet Fever .. .. .	..	..	..	..	..	..
Whooping Cough	1.06	1.06	1.57	0.69	0.94	1.45
Diphtheria .. .. .	..	..	..	..	..	..
Tuberculosis of Respiratory System..	..	0.26	0.22	0.25	0.14	0.08
Other forms of Tuberculosis	0.41	0.35	0.64	0.38	0.36	0.23
Syphilitic Diseases	0.41	0.53	0.43	0.19	0.14	0.08
Influenza	0.33	0.18	0.21	0.19	0.07	0.38
Measles	0.16	0.26	0.14	0.69	0.22	0.08
Acute Poliomyelitis and Polioen- cephalitis .. .. .	..	..	..	..	..	..
Acute Infectious Encephalitis .. ..	..	..	..	0.06	..	..
Cancer of all Sites .. .. .	..	..	..	..	..	0.08
Intra-Cranial Vascular Lesions ..	..	0.26	0.29	0.19	0.14	0.08
Heart Disease .. .. .	..	..	..	..	..	..
Other Diseases of Circulatory System	..	..	..	0.06	..	..
Bronchitis	1.39	2.55	1.58	1.01	0.58	0.91
Pneumonia	8.93	8.54	8.95	9.73	7.76	6.93
Other Respiratory Diseases	0.24	0.44	0.57	0.44	0.36	0.23
Diarrhoea (under 2 years)	5.90	7.30	11.96	14.47	4.13	4.34
Other Digestive Diseases	0.65	0.53	0.57	0.69	0.65	0.31
Nephritis .. .. .	..	..	0.07	0.25	..	..
Premature Birth	13.44	11.35	13.74	11.43	7.54	5.33
Congenital Malformations, Birth Injuries, and Infantile Diseases ..	14.50	16.63	17.40	14.72	13.63	13.33
Violent Causes	1.88	1.41	1.79	1.83	1.09	0.84
All other causes	4.10	3.70	3.29	2.72	4.13	3.20

INFANT MORTALITY



Deaths under One Year of Age from Premature Birth, Diarrhoea, and Other Causes, 1939-1949.
 Manchester—(From Registrar-General's Returns).

Year	Premature Birth		Diarrhoea		Other Causes		Total Deaths	Infant Mortality Rate per 1,000 Live Births
	Deaths	Rate per 1,000 Live Births	Deaths	Rate per 1,000 Live Births	Deaths	Rate per 1,000 Live Births		
1939 ..	161	15.5	60	5.8	413	39.8	634	61.1
1940 ..	146	14.0	70	6.7	513	49.4	729	70.2
1941 ..	176	17.9	109	11.0	547	55.5	832	84.5
1942 ..	187	18.2	88	8.6	388	37.8	663	64.5
1943 ..	167	14.9	85	7.6	429	38.4	681	60.8
1944 ..	164	13.4	72	5.9	418	34.3	654	53.6
1945 ..	129	11.4	83	7.3	422	37.1	634	55.8
1946 ..	192	13.7	167	12.0	531	38.0	890	63.7
1947 ..	181	11.4	223	14.1	542	34.3	946	59.8
1948 ..	104	7.5	57	4.1	420	30.5	581	42.1
1949 ..	70	5.3	57	4.3	375	28.6	502	38.2

Total Legitimate and Illegitimate Live Births in England and Wales and Manchester, with Illegitimate Percentages.
From Registrar-General's Return.

YEAR	LIVE BIRTHS, ENGLAND AND WALES				LIVE BIRTHS, MANCHESTER			
	Total	Legitimate	Illegitimate	Illegitimate % of total live births	Total	Legitimate	Illegitimate	Illegitimate % of total live births
1913 ..	881,890	843,981	37,909	4·30	18,791	18,018	773	4·11
1914 ..	879,096	841,767	37,329	4·25	18,779	17,972	807	4·30
1915 ..	814,614	778,369	36,245	4·45	16,696	15,956	740	4·43
1916 ..	785,520	747,831	37,689	4·80	15,597	14,901	696	4·46
1917 ..	668,346	631,189	37,157	5·56	12,937	12,195	742	5·74
1918 ..	662,773	621,620	41,153	6·21	12,926	12,053	873	6·75
1919 ..	692,438	650,562	41,876	6·05	13,686	12,758	928	6·78
1920 ..	957,994	913,727	44,267	4·62	19,213	18,253	960	4·99
1921 ..	848,814	810,196	38,618	4·52	17,549	16,647	902	5·14
1922 ..	780,124	745,986	34,138	4·38	15,787	15,013	774	4·90
1923 ..	758,131	726,609	31,522	4·16	15,388	14,677	711	4·62
1924 ..	729,933	699,637	30,296	4·15	14,483	13,826	657	4·54
1925 ..	710,582	681,686	28,896	4·07	14,162	13,493	669	4·72
1926 ..	694,563	664,972	29,591	4·26	13,969	13,290	679	4·86
1927 ..	654,172	625,149	29,023	4·35	13,036	12,388	648	4·97
1928 ..	660,267	630,565	29,702	4·50	12,902	12,256	646	5·01
1929 ..	643,673	614,366	29,307	4·55	13,058	12,380	678	5·19
1930 ..	648,811	619,129	29,682	4·57	12,851	12,178	673	5·24
1931 ..	632,081	603,995	28,086	4·44	12,337	11,694	643	5·21
1932 ..	613,972	586,961	27,011	4·39	11,825	11,206	619	5·24
1933 ..	580,413	555,005	25,408	4·37	11,156	10,582	574	5·15
1934 ..	597,642	571,857	25,785	4·31	11,555	10,974	581	5·03
1935 ..	598,756	573,651	25,105	4·19	11,379	10,842	537	4·72
1936 ..	605,292	580,397	24,895	4·11	11,231	10,681	550	4·90
1937 ..	610,557	585,216	25,341	4·15	10,786	10,268	518	4·80
1938 ..	621,204	594,825	26,379	4·25	11,025	10,468	557	5·05
1939 ..	619,352	593,410	25,942	4·19	10,378	9,807	571	5·50
1940 ..	607,029	581,156	25,873	4·26	10,388	9,873	515	4·96
1941 ..	579,091	548,033	31,058	5·36	9,849	9,239	610	6·19
1942 ..	651,503	615,036	36,467	6·00	10,276	9,680	596	5·80
1943 ..	684,334	640,625	43,709	6·38	11,185	10,431	754	6·74
1944 ..	751,478	696,305	55,173	7·34	12,204	11,239	965	7·91
1945 ..	679,937	616,517	63,420	9·33	11,362	10,175	1,187	10·45
1946 ..	820,719	766,800	53,919	6·57	13,969	12,874	1,095	7·84
1947 ..	881,026	834,423	46,603	5·29	15,830	14,760	1,070	6·76
*1948 ..	777,648	736,607	41,041	5·28	13,794	12,886	908	6·58
*1949 ..	731,179	694,117	37,062	5·07	13,129	12,243	886	6·75

* Figures for England and Wales are provisional.

* Figures for England and Wales are provisional.

Deaths of Infants under One Year of Age.
Manchester, 1913 to 1949.
From Registrar-General's Return.

Year	Total live births	Total deaths under one year	Deaths per 1,000 of the total live births	Legitimate births	Legitimate deaths	Deaths per 1,000 legitimately born	Illegitimate births	Illegitimate deaths	Deaths per 1,000 illegitimately born
1913	18,791	2,415	128.52	18,018	2,239	124.26	773	176	227.68
1914	18,779	2,423	129.03	17,972	2,218	123.41	807	205	254.03
1915	16,696	2,141	128.24	15,956	1,959	122.78	740	182	245.95
1916	15,597	1,737	111.37	14,901	1,578	105.90	696	159	228.45
1917	12,937	1,438	111.15	12,196	1,262	103.48	742	176	237.20
1918	12,926	1,381	106.83	12,053	1,201	100.00	873	180	206.19
1919	13,686	1,333	97.40	12,758	1,173	91.94	928	160	172.41
1920	19,213	1,882	97.95	18,253	1,169	91.44	960	213	221.88
1921	17,549	1,713	97.61	16,647	1,542	92.63	902	171	189.58
1922	15,787	1,525	96.60	15,013	1,375	91.59	774	150	193.80
1923	15,388	1,360	88.35	14,677	1,243	84.69	711	117	164.56
1924	14,483	1,454	100.39	13,826	1,316	95.18	657	138	210.05
1925	14,162	1,364	96.31	13,493	1,251	92.72	669	113	168.91
1926	13,969	1,216	87.05	13,290	1,116	83.97	679	100	147.28
1927	13,036	1,122	86.07	12,388	1,032	83.31	648	90	138.89
1928	12,902	1,179	91.38	12,256	1,084	88.44	646	95	147.06
1929	13,058	1,272	97.41	12,380	1,144	92.41	678	128	188.79
1930	12,851	995	77.43	12,178	881	72.34	673	114	169.39
1931	12,337	1,049	85.03	11,694	956	81.75	643	93	144.64
1932	11,825	1,015	85.83	11,206	934	83.35	619	81	130.86
1933	11,156	834	74.76	10,582	769	72.67	574	65	113.24
1934	11,155	798	69.06	10,974	742	67.61	581	56	96.39
1935	11,379	809	71.09	10,842	757	69.82	537	52	96.83
1936	11,231	863	76.84	10,681	816	76.40	550	47	85.45
1937	10,786	823	76.30	10,268	770	74.99	518	53	102.32
1938	11,025	761	69.03	10,468	702	67.06	557	59	105.92
1939	10,378	634	61.09	9,807	587	59.85	571	47	82.31
1940	10,388	729	70.18	9,873	677	68.57	515	52	100.97
1941	9,849	832	84.47	9,239	767	83.02	610	65	106.56
1942	10,276	663	64.52	9,680	621	64.15	596	42	70.47
1943	11,185	681	60.88	10,431	625	59.92	754	56	74.27
1944	12,204	654	53.59	11,239	577	51.34	965	77	79.79
1945	11,362	634	55.80	10,175	557	54.74	1,187	77	64.87
1946	13,969	890	63.71	12,874	798	61.98	1,095	92	84.02
1947	15,830	946	59.76	14,760	859	58.20	1,070	87	81.31
1948	13,794	581	42.12	12,886	524	40.66	908	57	62.77
1949	13,129	502	38.24	12,243	461	37.65	886	41	46.28

(Figures Compiled by the Medical Officer of Health for 52 Weeks.)

WARDS	LIVE BIRTHS				DEATHS UNDER 1 YEAR					
	Total	Legitimate	Illegitimate	% Illegitimate to Total Live Births	Total	Legitimate	Illegitimate	Rate per 1000 Live Births	Rate per 1000 Live Births Legitimate	Rate per 1000 Live Births Illegitimate
CITY OF MANCHESTER..	13129	12243	886	6.75	502	461	41	38.24	37.65	46.28
All Saints'	365	306	59	16.16	15	12	3	41.10	39.22	50.85
Ardwick	435	387	48	11.03	15	14	1	34.48	36.18	20.83
Beswick ..	481	458	23	4.78	19	17	2	39.50	37.12	86.96
Blackley..	556	543	13	2.34	22	19	3	39.57	34.99	230.77
Bradford	492	465	27	5.49	15	15	—	30.49	32.26	—
Cheetham	401	366	35	8.73	10	7	3	24.94	19.13	85.71
Chorlton-cum-Hardy	602	580	22	3.65	15	15	—	24.92	25.86	—
Collegiate Church..	203	172	31	15.27	12	10	2	59.11	58.14	64.52
Collyhurst	426	387	39	9.15	13	11	2	30.52	28.42	51.28
Crumpsall	403	392	11	2.73	19	19	—	47.15	48.47	—
Didsbury	426	400	26	6.10	9	9	—	21.13	22.50	—
Exchange	—	—	—	—	—	—	—	—	—	—
Gorton North	317	299	18	5.68	9	9	—	28.39	30.10	—
Gorton South	393	373	20	5.09	8	7	1	20.36	18.77	50.00
Harpurhey ..	396	381	15	3.79	17	17	—	42.93	44.62	—
Levenshulme	256	246	10	3.91	3	3	—	11.72	12.20	—
Longsight	355	335	20	5.63	15	14	1	42.25	41.79	50.00
Medlock Street	415	384	31	7.47	17	17	—	40.96	44.27	—
Miles Platting	327	316	11	3.36	9	9	—	27.52	28.48	—
Moston ..	478	463	15	3.14	15	14	1	31.38	30.24	66.67
Moss Side East	442	360	82	18.55	34	27	7	76.92	75.00	85.37
Moss Side West	375	345	30	8.00	18	18	—	48.00	52.17	—
New Cross	282	261	21	7.45	13	11	2	46.10	42.15	95.24
Newton Heath	379	364	15	3.96	14	12	2	36.94	32.97	133.33
Openshaw	362	345	17	4.70	15	15	—	41.44	43.48	—
Oxford ..	3	3	—	—	—	—	—	—	—	—
Rusholme	297	282	15	5.05	16	15	1	53.87	53.19	66.67
St. Ann's	1	1	—	—	—	—	—	—	—	—
St. Clement's	14	13	1	7.14	1	1	—	71.43	76.92	—
St. George's ..	427	383	44	10.30	20	19	1	46.84	49.61	22.73
St. John's	26	23	3	11.54	3	3	—	115.38	130.43	—
St. Luke's	525	443	82	15.62	23	20	3	43.81	45.15	36.59
St. Mark's	410	388	22	5.37	23	21	2	56.10	54.12	90.91
St. Michael's	319	301	18	5.64	14	13	1	43.89	43.19	55.56
Withington ..	604	577	27	4.47	24	23	1	39.73	39.86	37.04
Wythenshawe	936	901	35	3.74	27	25	2	28.85	27.75	57.14

Stillbirths, Neo-Natal Deaths, and Deaths at Four Weeks to One Year of Age per 1,000 Births
(Live and Stillbirth), also Infant Death Rate per 1,000 Live Births.
Manchester.

Year	Total live and stillbirths	STILBIRTHS		NEO-NATAL DEATHS		DEATHS, 4 WEEKS— 1 YEAR		DEATHS UNDER 1 YEAR AND STILLBIRTHS		Infant death rate per 1,000 live births
		Number of stillbirths	Rate per 1,000 live and stillbirths	Number of neo-natal deaths, 0-4 weeks	Rate per 1,000 total live and stillbirths	Number of deaths, 4 weeks— 1 year	Rate per 1,000 total live and stillbirths	Number of deaths under 1 year and stillbirths	Rate per 1,000 total live and stillbirths	
1932 ..	12,386	561	45.29	418	33.75	597	48.20	1,576	127.24	85.83
1933 ..	11,738	582	49.58	385	32.80	449	38.25	1,416	120.63	74.76
1934 ..	12,090	535	44.25	390	32.26	408	33.75	1,333	110.26	69.06
1935 ..	11,925	546	45.79	381	31.95	428	35.89	1,355	113.63	71.09
1936 ..	11,762	531	45.15	385	32.73	478	40.64	1,394	118.52	76.84
1937 ..	11,254	468	41.59	381	33.86	442	39.28	1,291	114.71	76.30
1938 ..	11,532	507	43.96	351	30.44	410	35.55	1,268	109.95	69.03
1939 ..	10,870	492	45.26	321	29.53	313	28.80	1,126	103.59	61.09
1940 ..	10,866	478	43.99	295	27.15	434	39.94	1,207	111.08	70.18
1941 ..	10,249	400	39.03	292	28.49	540	52.69	1,232	120.21	84.47
1942 ..	10,719	443	41.33	304	28.36	359	33.49	1,106	103.18	64.52
1943 ..	11,591	406	35.02	306	26.40	375	32.35	1,087	93.77	60.88
1944 ..	12,571	367	29.19	315	25.06	339	26.97	1,021	81.22	53.59
1945 ..	11,734	372	31.70	311	26.50	323	27.53	1,006	85.73	55.80
1946 ..	14,414	445	30.87	474	32.88	416	28.86	1,335	92.62	63.71
1947 ..	16,257	427	26.27	468	28.79	485	29.83	1,380	84.89	59.76
1948 ..	14,170	376	26.53	271	19.13	310	21.88	957	67.54	42.12
1949 ..	13,460	331	24.59	241	17.90	261	19.39	833	61.88	38.24

Notifiable Infectious Diseases other than Tuberculosis.

The following cases were notified in the various Wards of the City during the year ended December 31st, 1949:—

	Typhoid Fever	Paratyphoid Fever	Cerebro-spinal Fever	Scarlet Fever	Whooping Cough	Diphtheria	Erysipelas	Ophthalmia Neonatorum	Dysentery	Food Poisoning	Malaria (contracted in England & Wales)	Relapsing Fever	Smallpox	Measles	Poliomyelitis (acute)	Polio- encephalitis (acute)	Encephalitis Lethargica (acute)	Typhus Fever	Primary Pneumonia	Broncho Pneumonia	Influenzal Pneumonia	Puerperal Pyrexia	German Measles	Empligus Neonatorum	Total Cases of Infections Disease		
Total for City	5	10	29	1,594	2,749	22	112	94	30	35	—	—	—	6,485	32	3	—	—	520	207	56	300	386	9	12,678		
WARDS																											
ALL SAINTS'	—	2	3	11	35	—	5	2	2	—	—	—	—	108	—	—	—	—	13	14	8	45	5	—	253		
ARDWICK	—	—	1	70	74	—	4	3	—	2	—	—	—	179	—	—	—	—	9	1	—	10	7	1	361		
BESWICK	—	—	—	40	87	—	—	1	—	—	—	—	—	153	—	—	—	—	21	6	1	8	3	—	320		
BLACKLEY	1	—	3	94	118	—	5	2	1	3	—	—	—	390	4	—	—	—	17	5	—	5	11	1	660		
BRADFORD	—	—	—	44	93	2	5	3	—	—	—	—	—	226	—	—	—	—	26	12	—	11	4	—	426		
CHEETHAM	—	—	1	68	78	—	2	2	1	—	—	—	—	222	1	—	—	—	11	4	4	11	16	—	421		
CHORLTON-CUM-HARDY	1	1	—	52	127	—	7	11	—	4	—	—	—	334	3	1	—	—	14	1	—	8	15	—	579		
COLLEGIATE CHURCH	—	—	—	10	34	—	4	1	—	1	—	—	—	122	1	—	—	—	4	—	1	7	4	—	189		
COLLYHURST	—	—	2	27	61	1	4	1	3	—	—	—	—	179	1	—	—	—	18	6	1	3	8	—	315		
CRUMPSALL	1	—	1	82	90	—	3	2	2	1	—	—	—	269	1	—	—	—	19	2	1	7	10	—	401		
DIDSBURY	—	—	—	63	39	2	1	4	1	—	—	—	—	140	1	—	—	—	9	2	—	15	25	—	302		
EXCHANGE	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2		
GORTON NORTH	—	—	1	39	64	—	7	5	—	—	—	—	—	231	2	—	—	—	19	8	3	5	21	1	406		
GORTON SOUTH	—	—	—	38	71	2	4	4	—	—	—	—	—	295	—	—	—	—	10	6	7	6	10	1	454		
HARPURHEY	—	—	2	33	65	1	4	3	1	1	—	—	—	110	1	—	—	—	5	—	1	9	6	1	243		
LEVENSHULME	—	—	1	24	41	—	3	1	—	—	—	—	—	113	—	—	—	—	4	3	—	8	12	—	210		
LONGSIGHT	—	—	—	26	83	9	6	—	1	—	—	—	—	168	—	—	—	—	13	7	—	7	16	—	336		
MEDLOCK STREET	—	—	1	33	63	—	5	2	—	1	—	—	—	151	—	—	—	—	20	7	5	11	8	—	307		
MILES PLATTING	—	—	1	26	85	—	5	2	1	2	—	—	—	161	—	—	—	—	29	18	1	7	7	—	345		
MOSTON	—	—	1	112	113	—	4	2	—	—	—	—	—	387	1	—	—	—	15	2	1	3	9	1	651		
MOSS SIDE EAST	—	—	—	28	73	—	2	3	—	—	—	—	—	109	—	—	—	—	6	3	2	14	1	—	241		
MOSS SIDE WEST	—	—	2	26	27	—	2	1	—	1	—	—	—	160	1	—	—	—	10	4	1	13	3	—	251		
NEW CROSS	—	—	—	19	62	—	3	4	1	8	—	—	—	27	1	—	—	—	34	24	1	4	3	—	191		
NEWTON HEATH	—	1	—	90	86	—	6	2	—	—	—	—	—	407	1	—	—	—	42	12	8	10	6	1	672		
OPENSHAW	—	—	2	35	87	1	2	5	—	—	—	—	—	226	3	—	—	—	19	13	—	7	16	—	416		
OXFORD	—	—	—	3	4	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	—	13		
RUSHOLME	—	2	—	77	80	—	1	1	—	—	—	—	—	73	—	—	—	—	3	1	—	7	10	—	255		
ST. ANN'S	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
ST. CLEMENT'S	—	—	—	—	4	—	—	—	—	—	—	—	—	4	—	—	—	—	2	—	—	—	1	—	11		
ST. GEORGE'S	—	—	1	32	94	2	2	—	1	2	—	—	—	229	1	—	—	—	24	16	2	5	14	—	425		
St. JOHN'S	—	—	—	—	3	—	1	—	—	1	—	—	—	12	—	—	—	—	3	—	—	2	—	—	22		
ST. LUKE'S	—	—	1	14	61	1	2	4	1	—	—	—	—	186	1	—	—	—	14	3	—	14	12	—	314		
ST. MARK'S	—	2	4	55	91	1	2	3	1	—	—	—	—	209	1	1	—	—	21	5	3	3	27	—	429		
ST. MICHAEL'S	—	—	—	16	39	—	—	5	—	1	—	—	—	122	—	—	—	—	12	3	—	4	6	—	210		
WITHINGTON	1	1	—	120	102	—	3	6	—	3	—	—	—	247	3	—	—	—	10	6	4	9	38	—	553		
WYTHENSHAW	—	1	1	186	514	—	8	9	—	4	—	—	—	530	4	1	—	—	44	13	1	22	52	2	1,391		
HOSPITALS AND INSTITUTIONS (For Dysentery only)	—	—	—	—	—	—	—	—	13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	13		

INFECTIOUS DISEASES.

The deaths from the more common diseases are shown in the following figures :—

	Years	
	1944-48 Average	1949
Measles	11	7
Whooping Cough	24	29
Scarlet Fever	—	—
Diphtheria	7	—
Influenza	50	108
Pneumonia (all forms)	385	396
Enteric Fever	1	—
Diarrhoea	123	60
Pulmonary Tuberculosis	475	418

Consultations.

29 consultation visits were made during the year by medical officers of the Department at the request of medical practitioners in the City in connection with the diagnosis of cases of infectious disease in which the nature of the illness was in doubt.

SMALLPOX.

No case of smallpox occurred in Manchester during the year.

PUBLIC VACCINATION.

The percentage of infants successfully vaccinated in Manchester was 22·52 in 1949. The percentages for the last five years were :—

Year	Percentage
1945	59·22
1946	61·11
1947	59·20
1948	36·81
1949	22·52

The following is a summary of the returns made to the Ministry of Health in respect of the years 1948 and 1949.

*January to June, 1948.
Under former Vaccination Acts.*

Births	Successful Vaccinations	Insusceptible	Statutory Declaration	Died	Postponed	Not accounted for
7,447	3,154	132	1,095	271	33	2,792

Percentage of successful vaccinations—42.3.

July to December, 1948.

Births		Age at the 31st December, 1948				
		Under 1	1-4	5-14	15+	Total
6,521	Number primary vaccinations ..	1,988	69	37	179	2,273
	Number re-vaccinations	—	2	8	48	58

Percentage of Infants under 1 to total births in 6 months—30.5.

January to December, 1949.

Births		Age at the 31st December, 1949				
		Under 1	1-4	5-14	15+	Total
13,129	Number primary vaccinations ..	2,957	2,214	78	428	5,587
	Number re-vaccinations	—	—	5	174	179

Percentage of Infants under 1 to total births—22.52.

SCARLET FEVER.

There were 1,594 known cases of scarlet fever in 1949.

There were no deaths and the type of disease continued to be mild compared with that which was prevalent in former years.

26 per cent. of the patients were removed to hospital.

1949—Scarlet Fever Cases in Wards, with Attack Rate, Case Mortality, and Removals to Hospital per cent.

Wards	Cases	Attack Rate per 1,000 Living	Case Mortality per cent.	Removals to Hospital per cent.
City	1,594	2.28	—	26
All Saints'	11	0.84	—	64
Ardwick	70	3.83	—	46
Beswick	40	1.83	—	30
Blackley	94	3.29	—	11
Bradford	44	1.70	—	30
Cheetham	68	3.03	—	31
Chorlton-cum-Hardy ..	52	1.23	—	23
Collegiate Church ..	10	1.21	—	60
Collyhurst	27	2.15	—	26
Crumpsall	82	3.31	—	22
Didsbury	63	2.00	—	38
Exchange	1	11.63	—	100
Gorton North	39	1.76	—	18
Gorton South	38	1.42	—	39
Harpurhey	33	1.75	—	18
Levenshulme	24	1.20	—	13
Longsight	26	1.00	—	42
Medlock Street	33	2.11	—	21
Miles Platting	26	1.75	—	35
Moston	112	3.77	—	15
Moss Side East	28	1.65	—	21
Moss Side West	26	1.33	—	35
New Cross	19	1.47	—	37
Newton Heath	90	4.25	—	28
Openshaw	35	1.87	—	29
Oxford	3	15.31	—	—
Rusholme	77	3.76	—	44
St. Ann's	—	—	—	—
St. Clement's	—	—	—	—
St. George's	32	1.95	—	22
St. John's	—	—	—	—
St. Luke's	14	0.68	—	36
St. Mark's	55	2.79	—	25
St. Michael's	16	1.36	—	19
Withington	120	2.40	—	27
Wythenshawe	186	4.12	—	13

Scarlet Fever "Return" Cases, 1949.

Out of 461 discharges from Monsall Hospital, 3 gave rise to at least 3 "return" cases, a "return" case rate per cent. of 0.7 as compared with 1.8 in 1948.

The following table shows the interval in days between return home of hospital patients and onset of illness in "return" cases.

Days	0-6	7-13	14-20	21-27
No. of Cases	1	1	1	—

DIPHTHERIA.

The following figures show the number of cases notified and accepted as diphtheria each year for the last ten years :—

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
716	770	589	791	266	302	259	80	43	22

Mortality.

The case mortality rate in 1949 was nil.

TABLE 1.

Diphtheria.—Manchester Case Mortality Rates per cent. in Age Groups.

	0-5 years	5-10 years	10-15 years	15 years and over
1901-10	33.5	17.8	6.0	4.5
1940-49	6.2	5.0	1.7	1.5
Percentage Reduction	81	72	72	67

"Carriers" and the Virulence Test.

Of the total number of formal notifications received it was found on investigation that 4 related to persons who were merely "carriers" of diphtheria.

Swabs.

A total of 86 swabs were submitted to the Public Health Laboratory upon request by medical practitioners during the year and, of these, 3 or 3.5 per cent. proved positive. So far as was practicable, swabs were taken from the throats and noses of all members under 14 years of age of each family where there had occurred a case of diphtheria.

Supply of Antitoxin.

Under the National Health Service Act the responsibility for the provision of diphtheria anti-toxin for use by general practitioners when required has been taken over by the Regional Hospital Board. Arrangements have now been made for supplies of anti-toxin to be available at certain hospitals and fire stations in the City.

The following table shows that the number of attacks is now no longer highest in children up to 10 years.

TABLE II.

Diphtheria.—Number of Cases, of Deaths, and Case Mortality at Different Ages for the Fifty-Seven Years, 1891-1948 and for 1949.

Ages	1891-1948			1949		
	Cases	Deaths	* Case Mortality per cent.	Cases	Deaths	* Case Mortality per cent.
Under 1 year	643	316	49·00	—	—	—
1 to 2 years	1,613	638	40·00	—	—	—
2 to 3 „	2,446	652	27·00	3	—	—
3 to 4 „	3,183	660	21·00	1	—	—
4 to 5 „	3,594	592	17·00	2	—	—
5 to 6 „	3,899	518	13·00	3	—	—
6 to 7 „	3,360	349	10·00	2	—	—
7 to 8 „	2,689	250	9·00	1	—	—
8 to 9 „	2,228	198	9·00	1	—	—
9 to 10 „	1,680	141	7·00	1	—	—
10 to 15 „	5,250	203	4·00	6	—	—
15 to 20 „	2,105	59	3·00	2	—	—
20 to 25 „	1,255	28	2·00	—	—	—
25 to 35 „	1,404	29	2·00	—	—	—
35 to 45 „	567	11	2·00	—	—	—
45 and over	295	26	9·00	—	—	—
All ages	36,211	4,670	13·00	22	—	—

* The percentages in this column are the actual proportions of fatal cases to true cases at those ages. “Carriers” are excluded.

The case mortality rate at all ages since 1940 has been as follows :—

1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
6·06	5·84	4·58	3·16	2·26	4·63	4·25	5·00	2·33	NIL

TABLE III.

Diphtheria, 1949—Cases and Deaths in Wards, with Attack Rate.

Wards	Cases	Deaths	Attack Rate per 1,000 Living
City	22	—	·03
All Saints'	—	—	—
Ardwick	—	—	—
Beswick	—	—	—
Blackley	—	—	—
Bradford	2	—	·08
Cheetham	—	—	—
Chorlton-cum-H. Collegiate Church	—	—	—
Collyhurst	1	—	·08
Crumpsall	—	—	—
Didsbury	2	—	·06
Exchange	—	—	—
Gorton North	—	—	—
Gorton South	2	—	·07
Harpurhey	1	—	·05
Levenshulme	—	—	—
Longsight	9	—	·35
Medlock Street	—	—	—
Miles Platting	—	—	—
Moston.. .. .	—	—	—
Moss Side East	—	—	—
Moss Side West.. .. .	—	—	—
New Cross	—	—	—
Newton Heath	—	—	—
Openshaw	1	—	·05
Oxford	—	—	—
Rusholme	—	—	—
St. Ann's	—	—	—
St. Clement's	—	—	—
St. George's	2	—	·12
St. John's	—	—	—
St. Luke's	1	—	·05
St. Mark's	1	—	·05
St. Michael's	—	—	—
Withington	—	—	—
Wythenshawe	—	—	—

Immunisation against Diphtheria.

During the year 10,849 persons received a complete course of diphtheria prophylactic injections. 290 others received an incomplete course. The numbers were distributed as follows :—

TABLE A.

Number of Persons dealt with in Manchester in 1949.

	Numbers having received complete course of prophylactic	Numbers having received incomplete course of prophylactic	Numbers having received reinforcing course of prophylactic
School Clinics	103	1	70
Child Welfare Centres ..	5,156	129	560
Day Nurseries	345	4	71
Hospitals	120	6	14
Health Office	23	6	76
Mobile Unit	3,362	121	488
General Practitioners ..	1,617	20	162
Outside Authorities ..	123	3	17
Totals	10,849	290	1,458

During the year the Mobile Unit continued to visit the areas of the City in which the percentage of immunised children under 5 years of age was low and areas situated at a distance from the Child Welfare Centres and Day Nurseries. This Unit was responsible for the complete immunisation of 3,362 children.

Alum Precipitated Toxoid in two doses of 0·5 c.c. with a 4 weeks interval is used for the majority of children under 8 years who have the treatment carried out at the welfare centres, mobile immunisation unit, and at the health office. Children aged 8—15 years receive A.P.T. in two doses of 0·2 c.c. and 0·5 c.c., while persons over 15 years receive 3 injections of T.A.F.

Two prophylactics—T.A.F. and A.P.T.—are in use at the hospitals. T.A.F. and A.P.T. is supplied free to general medical practitioners in the City.

TABLE B.

Prophylactics Used in Immunising Pre-School and School Children.

Age Group	Number having received a full course of injections	Prophylactic Used	
		T.A.F.	A.P.T.
Under 5 years	10,434	18	10,416
5—14 years	368	12	356
Totals—Under 15 years	10,802	30	10,772

Although Schick testing is not practised as a routine in connection with the greater part of the scheme, 995 primary tests were performed during the year. 8 gave a positive result and 987 were negative. These were carried out largely among hospital patients and staff, as were the 362 posterior tests which gave 4 positive and 358 negative results.

The following table illustrates the progress of the immunisation scheme since its inception :—

DIPHTHERIA IMMUNISATION.

Illustrating the progress of the immunisation scheme since its inception.
Number of Persons, in Age Groups, having had Full Course of Injections.

	1928 to 1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	Total under 5 years at end of 1949. 37763
Under 1 year	642	598	595	691	963	822	1071	915	740	503	1497	1761	2298	1767	2383	2540	3349	4582	4678	
1 year ..	963	813	743	805	1219	1328	1169	1228	965	912	1882	2411	3557	2927	4379	4202	3444	4747	3994	
2 years ..	731	579	613	788	1033	863	890	894	576	409	1295	1292	1567	342	1258	1517	574	1139	1134	
3 ,, ..	673	482	733	668	1146	782	901	824	476	272	1065	1140	1504	168	554	1045	280	369	439	
4 ,, ..	645	458	744	664	1333	801	906	856	475	238	1057	920	1710	145	342	600	202	220	189	
5 ,, ..	665	473	921	997	1256	702	951	866	464	192	1226	473	1747	182	264	333	100	132	116	
6 ,, ..	624	406	1015	987	1309	772	972	878	447	222	1241	379	2165	199	233	269	77	91	74	
7 ,, ..	550	365	1002	1076	1242	751	890	832	382	195	1215	236	1577	206	139	215	52	68	58	
8 ,, ..	514	336	876	1415	1150	810	857	711	408	179	1137	176	931	106	101	189	43	63	33	
9 ,, ..	423	282	852	1301	1241	804	678	583	336	162	1036	112	805	98	68	143	36	54	31	
10 ,, ..	230	231	711	1376	1002	923	698	613	308	137	1050	117	864	97	87	86	28	37	23	
11 ,, ..	157	247	486	1061	907	703	459	444	274	86	933	121	595	72	71	89	15	27	16	
12 ,, ..	114	266	345	630	825	772	419	395	218	43	1038	131	465	32	67	61	22	18	7	
13 ,, ..	82	119	280	438	820	615	424	396	259	39	502	100	436	33	50	36	11	15	5	
14 ,, ..	41	48	76	247	191	96	117	79	49	11	219	53	51	12	14	17	6	11	5	
15 years and over..	135	121	67	371	1201	917	444	240	102	105	309	221	298	139	210	155	112	108	47	
Totals 1928-49	7189	5824	10059	13515	16838	12461	11846	10754	6479	3705	16702	9643	20570	6525	10220	11497	8351	11681	10849	204708
																				Total 10-15 years. 35013
																				Total 5-10 years. 35779
																				Total under 5 years at end of 1949. 37763
																				Total 15 years & over 96153

The totals at the end of 1949 indicate only approximately the immune population, since no account is taken of any deaths that may have ensued amongst the immunised children.

TYPHOID AND PARATYPHOID FEVER.

24 notifications were received, the diagnosis being subsequently corrected in 9 cases. Thus 15 cases occurred and 5 were infected by *B typhosus* and 10 by *B. paratyphoid*.

34 specimens of blood were submitted to the laboratory by medical practitioners from patients with illness simulating typhoid and 1 gave positive widal reactions.

An outstanding item under this heading was an outbreak of typhoid fever which was caused through infected food (contaminated by a carrier) consumed at a masonic hall outside Manchester.

The number of infected persons, all of whom were hospitalised, was 43, with 2 fatalities.

The number of cases in Manchester was 4, none of whom was fatal.

Over 260 contacts in Manchester who had visited the hall for meals during the suspected period were interviewed to ascertain the state of their health. A number of these gave blood, faeces, and urine specimens for examination, all of which were negative with the exception of the 4 cases.

The prompt action by the Authority concerned, along with the speedy co-operation of the neighbouring Authorities, no doubt led to an early control of what might have been a very large and serious outbreak.

CEREBRO-SPINAL FEVER.

38 notifications were received during the year. Of this number, 13 were from general medical practitioners, and these cases were removed to Monsall Hospital, 4 of which were confirmed subsequently. 25 cases were notified from and treated in other hospitals in the city, thus making a total of 29 confirmed cases of cerebro-spinal fever.

There were 9 deaths from this disease, giving a case mortality rate of 31.0 per cent., which compares with a rate of 40.0 per cent. in 1948.

As regards seasonal prevalence, 6 cases occurred in the first quarter of the year, 10 in the second, 5 in the third, and 8 in the last quarter.

Cases of Cerebro-Spinal Fever in Age Groups and Sexes, 1949.

Age Groups	No. of Cases Males	No. of Cases Females	Total
0— 5 years	13	12	25
5—10 „	—	—	—
10—15 „	—	—	—
15—20 „	—	—	—
20—25 „	1	—	1
25—35 „	—	—	—
35 and over	1	2	3
All ages	15	14	29

POLIOMYELITIS AND POLIO-ENCEPHALITIS.

76 notifications of Poliomyelitis and Polio-encephalitis were received and of these 35 were confirmed. 9 deaths occurred.

Particulars of the remaining 26 cases are given in the following table :—

Case No.	Sex	Age	Ward	Onset	Notified	Paralysis	Condition—April, 1950
1	M	2	St. Mark's	29th July	10th August	Left side of face	Attending hospital
2	M	1½	Wythenshawe	12th Nov.	24th Nov.	Left leg	Weekly massage
3	F	14	Openshaw	9th Jan.	14th Jan.	None	Completely recovered
4	M	1½	Wythenshawe	20th April	29th April	Right arm and leg	Quite well
5	F	2½	Longsight	17th May	20th May	Left leg	Slow improvement
6	F	2½	Wythenshawe	6th May	12th May	Left leg and arm	Slightly knock-kneed
7	F	8	Openshaw	16th June	27th June	None	Recovered
8	M	7	Blackley	5th July	17th July	Both legs	Considerably improved
9	F	1½	St. Luke's	9th August	14th August	Total paralysis	Slight improvement
10	M	1½	New Cross	9th August	16th August	Both legs	Recovered
11	F	3	Blackley	6th August	18th August	None	Good
12	M	2½	Openshaw	30th August	3rd Sept.	Left leg	Improving
13	M	9	St. George's	26th August	28th August	Both legs	Good
14	M	3	Crumpsall	20th August	31st August	None	Good
15	M	1½	Harpurhey	19th August	1st Sept.	None	Good
16	M	14	Wythenshawe	29th August	6th Sept.	Both legs	Good health
17	F	3½	Cheetham	25th Sept.	26th Sept.	Upper left arm	Satisfactory
18	F	9	St. Luke's	20th Sept.	26th Sept.	Left side of body	Yielding to treatment
19	F	26	Chorlton-cum-Hardy ..	24th Sept.	30th Sept.	Both legs	Improving
20	M	33	Blackley	28th Sept.	2nd October	None	Good
21	M	2½	Gorton North	5th October	7th October	None	Good
22	M	1½	Openshaw	30th Oct.	2nd Nov.	Right arm.	Satisfactory.
23	M	5mths.	Newton Heath	20th Oct.	3rd Nov.	?	Still in hospital
24	F	39	Moss Side West	30th Oct.	10th Nov.	Right leg	Improving
25	M	7	Withington	13th Nov.	17th Nov.	Left leg and arm	Satisfactory progress
26	M	2	Cheetham	20th Nov.	22nd Nov.	?	?

ENCEPHALITIS LETHARGICA.

No notifications of acute encephalitis lethargica were received in 1949.

1 death was registered in which chronic encephalitis lethargica was declared to be a contributory cause.

MEASLES AND GERMAN MEASLES.

Cases notified	1949				
	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
MEASLES—					
By Doctors	4,229	929	382	92	5,641
„ Others	524	249	67	13	844
Total	4,753	1,178	449	105	6,485
GERMAN MEASLES—					
By Doctors	116	120	65	65	366
„ Others	6	8	5	1	20
Total	122	128	70	66	386

WHOOPING COUGH.

Whooping Cough became compulsorily notifiable in October, 1939. Before this date the source of notification was solely from the schools.

Whooping cough notifications during 1949 :—

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
1949	982	919	544	304	2,749

**Incidence of Whooping Cough in Manchester
at Age Periods 0—5 and 5 Years and over.**

Disease	Under 5 years	5 years and over	Total
Whooping Cough	2,170	579	2,749

MALARIA.

No notification was received.

ANTHRAX.

No case of anthrax came to the notice of the Department.

DYSENTERY.

52 notifications of dysentery were received, of which 30 were confirmed as relating to true cases ; no deaths occurred.

Of the 30 cases, 21 proved to be associated with the presence of bacilli of the Sonne type, and 9 with other specific organisms,

PNEUMONIA.

Acute primary and influenzal pneumonia are notifiable, though many cases are only revealed through the death returns.

The following notifications of pneumonia were received :--

Primary Pneumonia	Lobar	481	} 783
	Lobular	207	
	Unclassified	39	
Influenzal Pneumonia	.. ..	56	

There were 430 deaths consisting of 103 lobar, 269 lobular, 24 unclassified, and 34 influenzal. Of these totals 370, consisting of 82 lobar, 235 lobular, 26 unclassified, and 27 influenzal were brought to the notice of the department through the death returns.

Thus the total number of known pneumonia cases for the year was 1,153.

Total primary notified	727
Total primary per death returns	343
<hr/>	
Total primary	1,070
Total influenzal notified	56
Total influenzal per death returns	27
<hr/>	
	<u>1,153</u>

Primary Pneumonia.

Of the 1,070 cases of primary pneumonia 563 were classified as lobar, 442 as lobular and 65 simply as pneumonia. The number of cases investigated by the Health Visitors was 992.

Influenzal Pneumonia.

56 cases of influenzal pneumonia were notified and 27 discovered through the death returns, a total of 83 cases.

Of all the cases of pneumonia known to the department 573 were transferred to hospital,

TUBERCULOSIS SERVICE.

The administrative offices for this section of the Health Department are located at the Tuberculosis Centre, 352, Oxford Road, Manchester, 13, premises owned by the Manchester Regional Hospital Board.

At the end of 1949, 5,508 persons were on the Tuberculosis Notification Register in Manchester, and the local authority is required by the Public Health (Tuberculosis) Regulations, 1930, and Section 28 of the National Health Service Act, 1946, to provide for their care, after-care, and in addition for the preventive aspects of the disease; the following table analyses these cases:—

	Respiratory	Non-Respiratory	Total
Active cases	2,798	571	3,369
In-active cases	1,568	571	2,139
Total	4,366	1,142	5,508

Number per thousand of the population 7.9

On the 31st December, 1949, 653 patients were undergoing treatment in sanatoria and hospitals, and 322 were awaiting admission. The provision of institutional care is the sole responsibility of the Regional Hospital Board, but the responsibility for the social and physical welfare of the tuberculous patient and his family falls on the local authority's care and after-care organization.

There has been no reduction in the waiting list for admission to sanatoria during 1949. The comparable figure at the end of 1948 was 320 persons.

Tuberculosis Health Visiting.

During 1949, the arrangements for visiting by Tuberculosis Visitors were re-organized, and the 36 municipal wards of the City were grouped into 15 districts.

The visitors report on all aspects of the health and social conditions of the household. Advice is given on hygiene and nutritive requirements, and the financial circumstances are ascertained in detail when there is doubt as to their adequacy. The visitors serve as a link between the Tuberculosis Centre and the patient, and have ready access to the Tuberculosis Officer at all times.

An important part of the Tuberculosis Visitors' work is to encourage contacts of the patient to attend the Tuberculosis Centre for examination. The importance of this will be appreciated when it is realised that half of the newly notified cases of respiratory tuberculosis in 1949 were found to be sputum positive, when first examined at the Tuberculosis Centre.

Sanitary defects noted by the visiting staff are reported to the Sanitary Section and 205 reports were made in 1949.

The nursing members of the staff assist in the work of the clinic, and escort patients on long ambulance journeys. The Regional Hospital Board contribute an agreed share of their salaries in respect of these duties.

Arrangements are made for students attending the Training Course for Health Visitors at the Manchester College of Technology to accompany the Tuberculosis Health Visitors on district work for a period of three weeks. They are also shown the administrative side of the work of the section,

The following table gives the case load for each of the 36 wards in the City :—

Cases on Notification Register (at March, 1950).

City Ward	Respiratory		Total	Non-Respiratory		Total	Grand Total
	Active	In-active		Active	In-active		
All Saints'	67	44	111	9	13	22	133
Ardwick	93	33	126	18	20	38	164
Beswick	60	40	100	17	18	35	135
Blackley	128	71	199	20	23	43	242
Bradford	99	67	166	25	21	46	212
Cheetham	97	52	149	19	12	31	180
Chorlton-cum-Hardy	144	89	233	32	33	65	298
Collegiate Church	41	19	60	7	9	16	76
Crumpsall	79	34	113	13	9	22	135
Collyhurst	59	34	93	12	18	30	123
Didsbury	103	51	154	14	20	34	188
Exchange	2	—	2	2	—	2	4
Gorton North	74	32	106	14	11	25	131
Gorton South	98	74	172	21	25	46	218
Harpurhey	62	29	91	13	9	22	113
Levenshulme	51	41	92	20	17	37	129
Longsight	84	70	154	25	18	43	197
Medlock Street	58	30	88	11	13	24	112
Miles Platting	48	26	74	11	5	16	90
Moss Side East	86	49	135	22	21	43	178
Moss Side West	87	28	115	21	17	38	153
Moston	102	52	154	14	18	32	186
New Cross	63	32	95	12	7	19	114
Newton Heath	90	54	144	20	17	37	181
Openshaw	71	42	113	16	10	26	139
Oxford	1	1	2	..	..	..	2
Rusholme	75	41	116	17	14	31	147
St. Ann's	—	—	—	—	—	—	—
St. Clement's	1	1	2	2	—	2	4
St. George's	58	33	91	19	12	31	122
St. John's	2	1	3	—	—	—	3
St. Luke's	89	43	132	19	17	36	168
St. Mark's	72	43	115	16	19	35	150
St. Michael's	38	16	54	8	10	18	72
Withington	152	104	256	29	42	71	327
Wythenshawe	364	192	556	53	73	126	682
"Totals	2,798	1,568	4,366	571	571	1,142	5,508

Home Nursing.

One nurse on a three-monthly rota duty is responsible for the nursing of tuberculous patients in their homes. With the long period of waiting for sanatorium treatment, this service has been very much appreciated by patients and medical practitioners. This home nurse covers the whole of the City.

Children.

Particulars are transmitted to the Maternity and Child Welfare Section of the Health Department of all children under five years of age who are notified to be suffering from tuberculosis, or who are living in tuberculous households.

The School Medical Department is informed of all children between 5 and 15 years of age, who are notified as suffering from tuberculosis.

Where children of school age are found by the Tuberculosis Health Visitor to be in need of clothing or footwear, particulars are referred to the Chief Education Officer for his information and action.

Nutrition.

Persons suffering from active tuberculosis are allowed by the Ministry of Food certain priorities and extra rations. These are as follows:—

Milk, 2 pints daily.

Eggs, 3 per week.

Bacon, 1oz. per week.

Butter/Margarine, 3ozs. per week.

Cooking fat, 1oz. per week.

At the end of 1949, 2,626 persons in Manchester were claiming these extra rations. The patient has, of course, to pay for them, and it is known that in some cases the concession has been lost as financial resources have been too slender.

The City Council's scheme under Section 28 of the National Health Service Act, 1946, provides for helping necessitous patients with food grants, and early in 1949, the Council adopted a scale, prepared by the Association of Municipal Corporations, for assessing need. The scale is as follows:—

					Minimum requirements	
					s.	d.
One adult (single or widow)	..	..	..	..	41	3
One parent and one child	..	..	..	..	52	6
Two parents	..	..	..	..	63	0
Two parents and one child	..	..	..	..	74	3
Two parents and two children	..	..	..	..	85	6
(add 11s. 3d. for each additional child)						

Every effort is made by the section to ensure that a patient and his dependants are receiving the maximum financial assistance under the various social measures, and if the income still falls below the above scale, a food grant is made by the local authority. 145 such grants were made in 1949. No monetary grants are permissible and assistance is in kind by an order to local tradespeople.

Assistance Grants.

The National Assistance Board now administer the special financial allowances available to all patients in need (except married women living with their husbands) who have suffered a loss of income to undergo treatment for tuberculosis of the *respiratory* system. In the case of adults, these allowances are 15s. higher than the ordinary scale of assistance. Local authorities were asked to co-operate with the Officers of the Board in the administration of these allowances and during the year, 519 cases were considered by the section and recommended to the Board as being entitled to receive the higher scale of allowances. Much useful information is exchanged between the Officers of the Board and the Care and After-Care Section in regard to the welfare of tuberculous persons in the City. The National Assistance Board have, on the recommendation of the section, assisted tuberculous patients and their families with monetary grants to obtain clothing, bedding, and to meet the cost of other essential needs. They have also granted to those persons who do not qualify for the special scale of allowances, an additional weekly payment to pay for extra nourishment, fuel, etc. The Officers of the Board have at all times shown a sympathetic understanding of the needs of the tuberculous family, and their close co-operation has been invaluable to the Care and After-Care Scheme.

Housing.

The conditions under which many patients are living are unsatisfactory but, with the present housing shortage, a recommendation for priority can only be made after full consideration of all the circumstances, and a great deal of time is devoted to assessing housing applications.

In some cases families who had been re-housed were found to be in very reduced financial circumstances and unable to afford the purchase of essential furniture and equipment. Assistance was given wherever possible, mainly through voluntary organisations, but this need is not fully met.

Disinfection of Premises—Bedding, etc.

Fumigation of rooms occupied by a patient is advised when he is admitted to sanatorium, changes his residence, or dies.

In active cases the Tuberculosis Visitor submits a report every three months on the cleansing and disinfection of the patient's rooms. This work is generally done by the tenant, but the Corporation will fumigate if desired. Arrangements are also made for the disinfection of bedding and clothing as occasion arises.

Provision of Sputum Boxes and Flasks.

Sputum boxes, which are burned after use, are available for free issue to patients, and may be obtained at the Tuberculosis Centre during normal office hours, or at the Divisional Police Stations throughout the City at any time of the day or night. The assistance of the Police Authorities in making this service possible is appreciated.

Sputum flasks are also available for free issue.

Issue of Sputum Boxes.

1947	1948	1949
41,868	43,808	60,895

Section 172, Public Health Act, 1936.

Public Health (Prevention of Tuberculosis) Regulations, 1925.

Manchester Corporation Act, 1934, Section 65.

It was unnecessary during the year under review to take legal action under the provisions of any of the foregoing enactments, but a careful watch is kept by the Department on patients employed in the preparation and handling of foodstuffs, or who are engaged in the milk trade.

Colonization.

For a number of years arrangements have existed whereby it has been possible to colonize suitable patients and in some cases their families in village settlements. This has proved a most successful method of dealing with the chronic case who, in addition to needing work under sheltered conditions, also required to be housed.

From experience gained over many years the initial expenditure by the local authority has been fully justified. The patient has become self-supporting and the Corporation relieved of the cost of providing either housing accommodation or institutional care.

The future policy in regard to colonization is at present under discussion.

Co-operation with Other Bodies.

Staff experienced in social problems is always available at the Tuberculosis Centre to advise and assist patients and their dependents on the many and varied problems affecting their welfare. This service is extensively used.

As already indicated there is a close liaison between the Department and the National Assistance Board, the Ministry of Labour, and the Welfare Services Department of the Ministry of Pensions.

Requests for information and assistance are being received from Medical Superintendents and Hospital Almoners in reference to patients undergoing treatment or about to be discharged, especially in regard to their home environment and domestic problems. This co-operation with the Hospital Officers is beneficial to both services.

The Department is in close contact with the British Red Cross Society, the District Provident Society, the Soldiers', Sailors', and Airmen's Families Association, and other voluntary bodies who are ready to help patients in various ways, in consultation with the Tuberculosis Officers. It is essential that the Care and After-Care Section continues to co-operate with these outside agencies, as the results during the past 18 months have been of great benefit to the many patients who have not qualified for direct assistance from the local authority.

The following report upon the operation of the Tuberculosis Service has been prepared by Dr. W. Lee, Chest Physician and Acting Senior Tuberculosis Officer with the Manchester Regional Hospital Board:—

The increase in the number of new cases of tuberculosis, and the continued extreme shortage of sanatorium beds for adults, has led to a year of frustration. Early diagnosis, as a means of early and satisfactory treatment, no longer holds when the average waiting period for male beds is 11 months and for females, 7 months. With the diminished number of staffed beds, the sanatoria tend to limit their outlook to the so-called treatable cases, and the larger problem outside of chronic infectious cases, often in overcrowded dwellings, and without domestic and nursing facilities, is apt to be overlooked. A certain amount of discrimination is used in regard to admissions, but no patient's chances of recovery are prejudiced. Streptomycin is of immense value

if used immediately in miliary tuberculosis and acute pulmonary tuberculosis and such cases are given priority. On the other hand, patients with chronic advanced disease who can be well looked after at home are encouraged to remain there. Thoracic surgery is improving and advancing and is undoubtedly the most effective measure in controlling cavitating disease which is a serious liability to the patient himself and a menace to his contacts. One feels, however, that these advances are mostly at the wrong end of the scale and that isolation and treatment of the infective case in sanatorium immediately on diagnosis, if vigorously pursued, would be a sound preventive measure and would obviate the necessity for many major procedures.

In the year 1949, there has again been an increase in the number of notified cases of both forms of tuberculosis. The respiratory cases are 972, which is 49 higher than in 1948, and the non-respiratory cases are 161, showing an increase of 12.

The deaths from respiratory tuberculosis in 1949 were 418 as compared with 478 in 1948. The non-respiratory deaths numbered 38 in comparison with a total of 49 in 1948.

NOTIFICATION.

Respiratory Tuberculosis.

The major increase has occurred in the 20—24 age group and has affected both males and females.

In the lower age groups there has been a reversal of what was noted in 1948. A decrease of 2 cases occurred in the 1—4 age group, but in the 5—9 age group there are 5 more cases notified than in 1948, and a marked increase of 13 in the next age group. Of the 35 cases in this 10—14 age group, it is interesting to find that 18 were diagnosed as suffering from tuberculous pleural effusion. This condition often closely follows primary tuberculous infection, but with sanatorium care usually resolves satisfactorily.

Non-Respiratory Tuberculosis.

The number of notified cases in males has increased from 67 in 1948 to 70 in 1949 and the respective figures of 82 and 91 for females show a higher proportional rise. The main age group affected is 25—34.

MORTALITY.

The mortality rates for both respiratory and non-respiratory disease are less than they have ever been.

Respiratory Tuberculosis.

The reduction in male deaths is 41, and in females 18. Practically all groups show this reduction, except in males over 65, where there has been an increase of 14.

Non-Respiratory Tuberculosis.

The number of deaths is 12 fewer than the preceding year amongst the females, whilst there has been an increase of 1 amongst the males.

CARE AND AFTER-CARE.

Section 28, National Health Service Act, 1946.

The previously mentioned shortage of sanatorium beds has had its repercussions on this section of the work. More than ever the calls for care and after-care have greatly increased, and this department has played a major part in alleviating the grave social difficulties associated with such a chronic disease as tuberculosis.

The Department is fortunate in having a visiting staff of 14 Tuberculosis Health Visitors and 2 Tuberculosis Inspectors who are wholly engaged in dealing with the tuberculous population. Following the primary investigation of a notified case of tuberculosis the same visitor carries out the subsequent routine visiting to advise and guide the patient and his family. The nurse or inspector is generally soon accepted as one whose sole concern is the family's welfare, and comes to be regarded and welcomed as a friend of the household.

The home nursing of cases has again been of great value, and the provision of motor transport has facilitated the work of the Clinical Nurse to an appreciable extent. There have been many calls for her services from the Tuberculosis Officers and General Practitioners in the City.

Many families have been helped by the loan of beds and bedding to assist treatment and isolation, and food grants and clothing have been provided for patients whose income falls below a set scale. The loan of nursing requisites has assisted in the treatment of patients on domiciliary care, and the free distribution of sputum boxes and flasks, together with the disinfection of premises, bedding and clothing, help in the preventive work of the section.

The Welfare Services and the Children's Officers play their part in this work too, and throughout the year many children have been admitted to institutional accommodation, thereby isolating them from infection in their home.

The Home Help Section has also given valuable aid to those tuberculous households where illness has seriously interfered in the domestic work of the home, and although this particular duty calls for volunteers there has been a good response with material benefit to the patients concerned.

In regard to housing, patients and families are recommended for priority when, after a careful assessment of all the circumstances, it is considered that re-housing is necessary on medical grounds. The primary consideration is the isolation of an infective patient, but where it is thought that a patient's home environment will militate against the improvement already made under sanatorium treatment, then an appropriate recommendation is made on these grounds.

Close co-operation is maintained with the Regional Hospital Board, and as the two departments share the same building the contact is immediate and assistance to the patient expeditious. There is a very satisfactory association with the National Assistance Board and patients are advised and assisted with their claims for the higher rates of benefit. The Ministries of Labour, Pensions, Insurance, Food, etc., and the voluntary organisations who help the sick and needy in the City, also give their willing co-operation and assistance.

The following table gives a brief summary of the work of the section:—

Tuberculosis Health Visitors—

Primary investigations	.. .. .	1,161
Routine domiciliary visits	.. .. .	14,528
Post death visits	.. .. .	1,017
Special visits	.. .. .	1,232
Ambulance journeys	.. .. .	243

Home Nursing—

Number of patients	.. .. .	90
Number of visits	.. .. .	1,724

Assistance to Patients and Families during 1949—

Food grants	.. .. .	145
Loans of beds and bedding	114
Loans of nursing requisites	294

Sputum boxes issued	60,985
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Sputum flasks issued	197
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Disinfections by Corporation—

Premises	763
Bedding	119

Housing Applications—

Cases reviewed	.. .. .	389
Cases recommended	.. .. .	159
Decision deferred	.. .. .	52
Families re-housed during the year	.. .. .	80

Domiciliary Active Treatment.

The scheme for domiciliary active treatment has been continued and 19 cases were found suitable for it. The patients are admitted to Baguley Sanatorium for a few days so that collapse therapy may be induced and afterwards they are transported by ambulance to the Sanatorium for subsequent refills. A sanatorium régime with complete bed rest has to be carried out at home and the facilities for doing this together with the suitability of the disease for this type of treatment are the obvious limitations of the scheme. In some cases sufficient progress is made that, later, admission to sanatorium is not necessary, whilst in others, the waiting period is used so successfully that the stay in sanatorium is decisively shortened. This economy in the use of beds is of some importance in the present difficult position.

Rehabilitation.

During the year 167 DPI (X) forms relating to the working capacity of tuberculous patients were completed for the Ministry of Labour. The demand for labour is such that many of the patients with quiescent disease are able to find employment which is not too strenuous and under reasonably good conditions. A fact worth noting is that many employers are willing to allow patients time off to attend the clinic for treatment or for periodic examinations.

31 of the more difficult cases attended the special interviewing panels, where the sympathetic understanding of Mr. N. Phillips, the Disablement Rehabilitation Officer, was much appreciated. He was responsible for finding employment, or training, for 22 of these patients.

The rehabilitation of the chronic cases is an entirely separate problem. Many of them are only fit for light, part-time employment, and in view of their infectivity, it is impossible to condone their working under ordinary industrial conditions in close contact with other employees. Tentative enquiries have been made with regard to the establishment in Manchester of a Remploy factory, where work will be carried out under sheltered conditions and with medical supervision.

Attendances at the Clinic.

The efficiency of the clinic can be gauged to a great extent by the confidence with which General Practitioners refer cases for opinions on diagnosis and treatment of chest conditions. This is adequately shown by an increase of 728 in the number of new patients examined during 1949. The total attendances, however, have fallen to 19,855, and this is due in part to a lack of sufficient medical staff to cope with the adequate re-examination of old cases. This is a factor of some importance in controlling tuberculous infection in the City.

The Medical Boards referred 101 patients for examination, and the Ministry of Pensions were furnished with 352 reports on cases under their jurisdiction.

Domiciliary visits, often in consultation with their own general practitioners, were paid to 1,222 cases by the medical staff. In addition to diagnosis, advice is sought on treatment to be carried out during the long wait for admission to sanatorium.

X-Ray Department.

In 1949 a total of 10,312 examinations were carried out in this department. Radiography is an essential part of the diagnosis of tuberculosis, and also in eliminating the possibility of its presence. An X-ray picture often indicates the line of treatment to be undertaken, and serial films provide a permanent record of the progress of the disease.

Laboratory.

The culture of sputum specimens, which is a more sensitive method of finding tubercle bacilli is now undertaken in the laboratory.

TABLE 1.

Comparative Figures.

Rates per Thousand of the Population.

	1935-39 (Mean rate)	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
DEATH RATES—											
General	13.42	17.98	16.64	14.72	15.50	14.20	14.41	13.52	13.79	12.27	12.91
All respiratory diseases (except tuberculosis) ..	1.64	4.00	2.81	2.13	2.64	2.04	2.33	2.09	2.11	1.80	2.10
Tuberculosis (all forms)	1.04	1.24	1.32	1.12	1.07	0.91	0.93	0.79	0.75	0.76	0.65
Respiratory, both sexes ..	0.90	1.09	1.39	0.99	0.91	0.80	0.80	0.69	0.66	0.69	0.60
„ males only ..	1.13	1.43	1.45	1.23	1.14	0.95	1.00	0.92	0.88	0.89	0.76
„ females only ..	0.69	0.78	0.84	0.76	0.71	0.66	0.62	0.48	0.46	0.50	0.45
Non-Respiratory tuber- culosis (both sexes) ..	0.14	0.15	0.19	0.13	0.16	0.11	0.13	0.10	0.09	0.07	0.05
TUBERCULOSIS NOTIFICA- TION RATES—											
All forms	1.77	2.04	2.17	1.99	2.08	1.88	1.93	1.60	1.47	1.55	1.62
Respiratory only	1.33	1.63	1.72	1.57	1.60	1.50	1.57	1.32	1.25	1.33	1.39
Non-Respiratory only ..	0.43	0.42	0.45	0.42	0.48	0.38	0.36	0.28	0.22	0.22	0.23

TABLE 2.

New Cases and Deaths during 1949.

Age Periods	New Cases				Deaths			
	Respiratory		Non-Respiratory		Respiratory		Non-Respiratory	
	M.	F.	M.	F.	M.	F.	M.	F.
0 —	5	2	—	—	—	1	2	1
1 —	18	13	11	6	2	2	4	3
5 —	32	31	18	19	—	—	3	1
15 —	306	317	35	51	100	120	6	8
45 —	170	35	1	11	115	35	5	1
65 and upwards ..	32	11	5	4	34	9	1	3
Totals ..	563	409	70	91	251	167	21	17
	972		161		418		38	

In the above Table and those that follow, it has always been the practice to include amongst new cases, not only those who have been diagnosed for the first time as suffering from tuberculosis, but also cases who have moved into Manchester from outside areas. In this way the full extent of the disease in the City is envisaged.

The number of deaths of non-notified cases of respiratory tuberculosis was 23 = 5.5 per cent.

The number of deaths of non-notified cases of non-respiratory tuberculosis was 6 = 15.8 per cent.

The percentage of deaths of non-notified cases of all forms of tuberculosis was 6.4.

There was, in addition, 1 death of a non-notified case outside Manchester which was adjudged by the Registrar-General to be properly referable to this area.

TABLE 3.
Primary Notifications and Deaths from Respiratory Tuberculosis, 1917-1949.
 (Manchester figures—52 weeks)

Age Groups.

Respiratory Tuberculosis	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	Total	
												Notifications	Deaths
Notifications, 1917—1938	86	557	1463	1528	3203	3708	6026	5553	4666	2481	839	30110	19143
Deaths, " "	66	219	158	322	1685	2210	3633	3892	3934	2220	804		
Notifications, 1939	3	8	19	22	125	132	174	169	116	101	41	910	598
Deaths, " "	1	2	—	4	53	73	131	98	100	101	35		
Notifications, 1940	5	5	14	21	145	136	216	171	156	98	45	1012	685
Deaths, " "	2	2	1	5	64	56	144	149	118	91	53		
Notifications, 1941	3	15	10	30	148	136	206	163	164	116	45	1036	702
Deaths, " "	—	5	4	4	63	67	125	117	121	131	65		
Notifications, 1942	1	5	17	18	130	150	202	173	109	109	32	946	596
Deaths, " "	—	1	6	3	41	68	119	111	104	101	42		
Notifications, 1943	1	11	10	21	129	157	208	169	115	102	34	957	547
Deaths, " "	1	1	—	4	41	57	92	106	108	102	35		
Notifications, 1944	2	18	18	27	117	139	191	140	123	102	45	922	495
Deaths, " "	—	3	2	2	34	59	95	89	99	77	35		
Notifications, 1945	3	20	10	27	119	174	206	158	133	94	38	982	495
Deaths, " "	3	2	2	6	31	60	96	68	95	81	51		
Notifications, 1946	6	12	24	21	79	165	216	125	131	71	35	885	459
Deaths, " "	4	—	2	1	23	52	87	69	96	77	48		
Notifications, 1947	6	27	33	29	121	143	170	103	118	76	33	859	448
Deaths, " "	3	5	—	1	21	40	96	77	97	78	30		
Notifications, 1948	4	33	23	22	110	130	206	144	114	92	45	923	478
Deaths, " "	1	4	2	—	28	55	86	89	96	81	36		
Notifications, 1949	7	31	28	35	108	162	219	134	111	94	43	972	418
Deaths, " "	1	4	—	—	18	46	73	82	80	70	44		
Total notifications	127	742	1669	1801	4534	5332	8240	7202	6056	3536	1275	40514	25064
Total deaths	82	248	177	352	2102	2843	4777	4947	5048	3210	1278		

TABLE 4.

Primary Notifications and Deaths from Non-Respiratory Tuberculosis, 1917-1949.

(Manchester figures—52 weeks)

Age Groups.

Non-respiratory Tuberculosis	0-	1-	5-	10-	15-	20-	25-	35-	45-	55-	65-	TOTAL	
												Notifications	Deaths
Notifications, 1917—1938 Deaths, " "	290 346	1930 1080	2241 466	1754 387	1394 411	834 268	946 307	558 241	397 214	246 149	146 106	10736	3975
Notifications, 1939 .. Deaths, " ..	4 3	46 24	40 9	34 7	46 14	29 12	36 9	23 6	15 5	10 8	6 6	289	103
Notifications, 1940 .. Deaths, " ..	3 4	29 17	47 9	30 2	42 10	27 7	31 9	18 5	17 10	10 4	6 6	260	83
Notifications, 1941 .. Deaths, " ..	3 3	47 35	40 9	34 8	40 14	24 9	45 13	21 10	11 8	2 7	6 3	273	119
Notifications, 1942 .. Deaths, " ..	2 4	36 14	35 5	27 7	42 9	29 10	33 10	24 3	16 1	8 6	3 6	255	75
Notifications, 1943 .. Deaths, " ..	4 3	36 22	36 2	34 12	44 12	36 5	51 12	18 7	18 6	8 6	7 1	292	88
Notifications, 1944 .. Deaths, " ..	3 4	34 13	32 7	15 5	32 7	36 5	34 3	25 6	9 8	12 4	3 2	235	64
Notifications, 1945 .. Deaths, " ..	6 4	31 22	36 6	33 8	29 5	20 6	30 7	20 8	11 5	5 3	3 5	224	79
Notifications, 1946 .. Deaths, " ..	7 8	31 14	24 5	23 4	25 4	21 8	27 8	12 3	8 8	5 2	6 1	189	65
Notifications, 1947 .. Deaths, " ..	2 6	19 14	22 6	17 2	21 8	17 8	12 5	18 5	5 1	8 5	6 2	147	62
Notifications, 1948 .. Deaths, " ..	3 4	17 9	21 5	17 4	17 3	19 1	22 3	13 6	11 4	7 1	2 6	149	46
Notifications, 1949 .. Deaths, " ..	— 3	17 8	15 2	22 2	25 2	19 4	33 6	9 1	8 5	4 1	9 4	161 —	38
Total notifications .. Total deaths ..	327 392	2273 1272	2589 531	2040 448	1757 499	1111 343	1300 392	759 301	526 275	325 196	203 148	13210	4797

Table 5.

**Primary Notifications of Respiratory and Non-Respiratory Tuberculosis
received from Municipal Wards during 1949.**

Wards	Estimated Population	Respiratory	Non- Respiratory	Totals	Rate per Thousand of Population
1. Exchange	86	—	—	—	0·00
2. New Cross	12,897	32	—	32	2·48
3. St. Clement's	768	1	2	3	3·91
4. Oxford	196	2	—	2	10·20
5. St. John's	1,561	2	—	2	1·28
6. St. Ann's	18	—	—	—	0·00
7. St. Michael's	11,731	21	1	22	1·87
8. Collyhurst	12,542	24	2	26	2·07
9. Cheetham	22,475	26	4	30	1·33
10. Collegiate Church ..	8,285	25	3	28	3·38
11. Crumpsall	24,744	28	—	28	1·13
12. Blackley	28,605	37	8	45	1·57
13. Harpurhey	18,769	28	1	29	1·54
14. Moston	29,703	30	5	35	1·18
15. Newton Heath	21,175	25	6	31	1·46
16. Miles Platting	14,835	23	2	25	1·68
17. Bradford	25,849	28	4	32	1·24
18. Beswick	21,905	24	3	27	1·23
19. Ardwick	18,260	31	8	39	2·13
20. Openshaw	18,763	30	5	35	1·86
21. St. Mark's	19,711	28	5	33	1·67
22. Longsight	25,958	28	12	40	1·58
23. All Saints'	13,103	36	6	42	3·20
24. St. Luke's	20,452	41	7	48	2·35
25. Medlock Street	15,664	27	5	32	2·04
26. St. George's	16,424	25	4	29	1·76
27. Moss Side East	16,972	40	9	49	2·89
28. Moss Side West	19,613	27	7	34	1·73
29. Chorlton-cum-Hardy	42,420	52	9	61	1·44
30. Didsbury	31,499	24	2	26	0·82
31. Withington	50,050	57	9	66	1·32
32. Gorton North	22,211	19	5	24	1·08
33. Gorton South	26,765	38	9	47	1·76
34. Levenshulme	19,995	12	2	14	0·70
35. Rusholme	20,456	30	4	34	1·66
36. Wythenshawe	45,140	69	12	81	1·80
37. Unclassified	—	2	—	2	0·00
Total—City of Manchester	699,600	972	161	1,133	1·62

NOTE.—In the above table the population figures are not strictly accurate being based on the last census figures (1931). Removals on account of slum clearance, war damage, etc. will have disturbed the balance, but the figures serve to give a general picture of the variation in incidence according to the character of the Ward.

It will be seen that the incidence rate is higher generally in the more congested areas

TABLE 6.
Sources of Notification of Tuberculosis during 1949.

Source	Respiratory	Non-Respiratory	Totals
Crumpsall Hospital	58	4	62
Withington Hospital	47	12	59
Booth Hall Hospital	49	28	77
Monsall Hospital	8	3	11
Manchester Royal Infirmary	19	41	60
Ancoats Hospital	24	9	33
Manchester and Salford Skin Hospital	—	4	4
St. Mary's Hospital	—	1	1
Northern Hospital	2	2	4
Victoria Memorial Jewish Hospital	1	1	2
Royal Manchester Children's Hospital, Pendlebury ..	11	7	18
Do. do. do. do. Gartside St.	3	1	4
Duchess of York Hospital for Babies	5	2	7
Manchester Hospital for Consumption	1	—	1
Mental Hospitals	18	2	20
H.M. Forces	37	4	41
Ministry of Pensions	1	1	2
Local Authorities (Transfers)	69	7	76
Private Practitioners	518	18	536
Abergele Sanatorium	19	—	19
Tuberculosis Staff	70	7	77
Baguley Sanatorium and E.M.S. Hospital	7	—	7
Various Sources	5	7	12
Total	972	161	1,133

TABLE 7.

Sources of Primary Notification of Non-Respiratory Cases for
the Years 1918 to 1949.

Source	1918- 1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
Crumpsall Hospital	442	24	14	17	18	9	6	9	7	7	4
Withington Hospital ..	425	19	14	20	15	10	7	6	5	10	12
Booth Hall Hospital	995	31	48	34	42	37	35	30	28	25	28
District Medical Officers ..	10	—	—	—	—	—	—	—	—	—	—
Manchester Royal Infirmary	1712	44	51	48	75	49	61	49	26	26	41
Ancoats Hospital	839	11	29	24	23	18	8	12	13	7	9
Manchester and Salford Skin Hospital	690	14	11	7	8	10	7	6	5	6	4
St. Mary's Hospital	202	7	4	2	2	3	2	2	2	1	1
Northern Hospital	161	8	4	4	2	1	2	2	3	—	2
Victoria Memorial Jewish Hospital	86	3	1	1	2	2	2	—	1	—	1
Royal Manchester Children's Hospital— Pendlebury	248	6	13	10	10	9	7	12	8	5	7
Gartside Street	610	9	7	2	8	4	6	2	—	4	1
Duchess of York Hospital for Babies	33	—	2	1	5	3	2	8	2	5	2
Mental Hospitals	38	1	5	2	4	2	—	—	—	2	2
Schools	358	3	2	2	2	—	—	2	1	1	—
Child Welfare Centre ..	5	—	—	1	—	—	—	1	—	—	—
H.M. Forces	41	4	7	8	13	13	8	4	2	1	4
Ministry of Pensions ..	—	—	—	4	3	3	1	2	3	1	1
Private Practitioners.. ..	2408	31	30	33	26	24	27	15	15	19	18
Tuberculosis Staff	294	18	13	12	16	11	14	6	9	17	7
Various Sources	625	27	18	23	18	27	29	21	17	12	17
Totals	10222	260	273	255	292	235	224	189	147	149	161

TABLE 8.

* New Cases of Respiratory Tuberculosis
Notified during the Years 1900 to 1949.

Year						Poor-law Cases	Institutions, etc.	Private Practitioners	Total
(1)	1900	..	..	..	..	578	455	540	1,573
	1901	..	..	..	..	625	373	341	1,339
	1902	..	..	..	..	667	305	303	1,275
	1903	..	..	..	..	556	550	251	1,357
	1904	..	..	..	..	512	440	250	1,202
	1905	..	..	..	..	527	588	291	1,406
	1906	..	..	..	..	565	510	304	1,379
	1907	..	..	..	..	634	646	310	1,590
(2)	1908	..	..	..	..	659	498	346	1,503
	1909	..	..	..	..	681	542	384	1,607
	1910	..	..	..	..	543	760	356	1,659
(3)	1911	..	..	..	..	517	897	423	1,837
(4)	1912	..	..	..	..	488	947	969	2,404
(5)	1913	..	..	..	..	345	717	1,350	2,412
	1914	..	..	..	..	483	877	1,304	2,664
	1915	..	..	..	..	279	740	1,194	2,213
	1916	..	..	..	..	322	817	1,410	2,549
	1917	..	..	..	..	470	716	1,061	2,247
	1918	..	..	..	..	268	563	1,015	1,846
	1919	..	..	..	..	208	538	845	1,591
	1920	..	..	..	..	206	629	672	1,507
	1921	..	..	..	..	257	632	722	1,611
	1922	..	..	..	..	233	567	656	1,456
	1923	..	..	..	..	239	546	659	1,444
	1924	..	..	..	..	223	555	731	1,509
	1925	..	..	..	..	262	496	746	1,504
	1926	..	..	..	..	220	422	765	1,407
	1927	..	..	..	..	241	441	756	1,438
	1928	..	..	..	..	253	361	824	1,438
	1929	..	..	..	..	201	382	802	1,385
	1930	..	..	..	..	201	377	709	1,287
						<i>Transferred Hospitals</i>			
	1931	..	..	..	..	206	362	717	1,285
	1932	..	..	..	..	202	228	657	1,087
	1933	..	..	..	..	205	213	663	1,081
	1934	..	..	..	..	242	197	634	1,073
	1935	..	..	..	..	218	202	586	1,006
	1936	..	..	..	..	208	192	575	975
	1937	..	..	..	..	233	275	547	1,055
	1938	..	..	..	..	249	202	496	947
	1939	..	..	..	..	223	227	460	910
	1940	..	..	..	..	241	275	496	1,012
	1941	..	..	..	..	218	324	494	1,036
	1942	..	..	..	..	179	335	432	946
	1943	..	..	..	..	200	381	376	957
	1944	..	..	..	..	138	408	376	922
	1945	..	..	..	..	129	395	458	982
	1946	..	..	..	..	133	365	387	885
	1947	..	..	..	..	157	311	391	859
	1948	..	..	..	..	152	303	468	923
	1949	..	..	..	..		454	518	972
Total							39,532	31,020	70,552

* This table does not include 425 cases notified in 1899.

- (1). Voluntary notification of Pulmonary Tuberculosis—Manchester Scheme.
 (2). Compulsory notification (Tuberculosis Regulations) from Poor Law Institutions.
 (3). Compulsory notification from voluntary institutions.
 (4). Compulsory notification of Pulmonary Tuberculosis by all practitioners.
 (5). Compulsory notification of all forms of Tuberculosis.

TABLE 9.

New Cases of Non-Respiratory Tuberculosis Notified
during the Years 1913—1949.

Year								Males	Females	Total
1913	..	..	..	..	..	..	..	759	714	1,473
1914	..	..	..	..	..	..	..	519	413	932
1915	..	..	..	..	..	..	..	422	415	837
1916	..	..	..	..	..	..	..	418	467	885
1917	..	..	..	..	..	..	..	433	449	882
1918	..	..	..	..	..	..	..	345	353	698
1919	..	..	..	..	..	..	..	206	228	434
1920	..	..	..	..	..	..	..	280	257	537
1921	..	..	..	..	..	..	..	295	281	576
1922	..	..	..	..	..	..	..	321	284	605
1923	..	..	..	..	..	..	..	350	380	730
1924	..	..	..	..	..	..	..	316	307	623
1925	..	..	..	..	..	..	..	322	300	622
1926	..	..	..	..	..	..	..	239	224	463
1927	..	..	..	..	..	..	..	277	226	503
1928	..	..	..	..	..	..	..	214	276	490
1929	..	..	..	..	..	..	..	204	171	375
1930	..	..	..	..	..	..	..	251	215	466
1931	..	..	..	..	..	..	..	259	237	496
1932	..	..	..	..	..	..	..	201	201	402
1933	..	..	..	..	..	..	..	154	159	313
1934	..	..	..	..	..	..	..	170	143	313
1935	..	..	..	..	..	..	..	146	161	307
1936	..	..	..	..	..	..	..	154	147	301
1937	..	..	..	..	..	..	..	184	192	376
1938	..	..	..	..	..	..	..	154	149	303
1939	..	..	..	..	..	..	..	143	146	289
1940	..	..	..	..	..	..	..	129	131	260
1941	..	..	..	..	..	..	..	135	138	273
1942	..	..	..	..	..	..	..	118	137	255
1943	..	..	..	..	..	..	..	127	165	292
1944	..	..	..	..	..	..	..	110	125	235
1945	..	..	..	..	..	..	..	108	116	224
1946	..	..	..	..	..	..	..	104	85	189
1947	..	..	..	..	..	..	..	71	76	147
1948	..	..	..	..	..	..	..	67	82	149
1949	..	..	..	..	..	..	..	70	91	161
Total								8,775	8,641	17,416

TABLE 10.
Tuberculosis (Non-Respiratory)—New Cases notified during 1949—Age Groups and Site.

LOCATION OF DISEASE.																			
Age Groups	Meninges		Miliary		Abdomen		Bones Joints		Vertebral Column		Lymphatic System		Genito-Urinary		Other Sites		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
0—4	6	3	—	—	—	—	1	—	—	2	—	2	—	1	1	1	—	11	6
5—9	1	1	—	—	—	—	3	2	—	1	3	3	—	—	—	1	7	8	
10—14	2	2	—	—	1	—	2	1	1	1	2	7	—	—	3	—	11	11	
15—19	2	4	—	—	2	2	1	—	3	1	2	3	1	—	2	2	13	12	
20—24	—	—	—	—	—	2	2	—	4	1	2	4	—	1	—	3	8	11	
25—34	—	2	—	—	—	—	3	2	4	2	1	7	2	6	1	3	11	22	
35—44	—	—	—	—	—	1	—	—	1	1	—	2	1	—	1	2	3	6	
45—54	—	—	1	—	—	1	—	1	—	1	—	1	2	—	—	1	1	7	
55—64	—	—	—	—	—	—	—	—	—	1	—	2	—	—	—	1	—	4	
65—	—	—	—	—	—	—	3	1	1	—	—	2	1	—	—	1	5	4	
Totals ..	11	12	1	—	3	6	15	7	14	11	12	31	6	10	8	14	70	91	

TABLE 11.—Return showing the Work of the Clinic during 1949.

Diagnosis	Respiratory				Non-Respiratory				Total				Grand Total	
	Adults		Children		Adults		Children		Adults		Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—New cases examined during the year (excluding contacts)—														
(a) Definitely tuberculous	450	307	41	37	30	50	26	25	480	357	67	62	966	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	231	223	31	31	516
(c) Non tuberculous	..	..	..	..	..	..	..	..	1382	1490	150	150	3172
B.—Contacts examined during the year—														
(a) Definitely tuberculous	16	29	10	12	1	2	4	..	17	31	14	12	74	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	18	39	30	18	105
(c) Non-tuberculous	..	..	..	..	..	..	..	..	327	556	351	314	1548
C.—Cases written off the Clinic Register as—														
(a) Recovered	40	39	1	..	9	15	1	1	49	54	2	1	106	
(b) Non-tuberculous	..	..	..	..	..	..	..	..	1709	2046	501	464	4720
D.—Number of persons on Clinic Register on December 31st—														
(a) Definitely tuberculous	2268	1805	166	143	381	470	164	114	2649	2275	330	257	5511	
(b) Diagnosis not completed	..	..	..	..	..	..	..	..	249	262	61	49	621
Cases of tuberculosis who received Treatment from the Clinic													181	
Attendances at the Clinic													19,855	
X-ray Examinations													10,312	

TABLE 12.—Analysis of Cases Treated

INSTITUTION	Total Cases Treated			Discharged from Institutions		Died	Residential Treatment discontinued in other cases	Still under Residential Treatment on 1st Jan., 1950
	Males	Females	Children	Improved	Without Improvement			
			RESPIRATORY					
Baguley	329	422		63 67	91 135	32 40	23 34	120 146
Crossley	59	95		24 33	3 5	1 2	9 4	22 51
Abergele	109		229	54 96	— 1	3 4	2 1	50 127
Barrowmore	36			11	4	1	2	18
Withington	47	31		28 21	2 5	12 3	— —	5 2
Booth Hall	2	3	74	2 3 58	— — —	— — 5	— — 3	— — 8
Crumpsall	41	23		— 2	25 16	12 2	— —	4 3
Wrightington	10	6		3 —	1 2	1 —	— —	5 4
Total Respiratory	633	580	303	465	290	118	78	565
			NON-RESPIRATORY					
Abergele			99	43	3	4	1	48
Shropshire Orthopaedic Hospital	16	8	3	6 3 —	— — —	— — —	— — —	10 5 3
Withington	17	24		10 20	2 1	3 2	— —	2 1
Booth Hall	1	3	46	— 3 31	— — —	— — 6	— — —	1 — 9
Crumpsall	17	13		3 3	9 7	3 3	— —	2 —
Wrightington	10	3		5 1	— —	— —	— —	5 2
Total Non-Respiratory	61	51	148	128	22	21	1	88
Total—ALL FORMS ..	694	631	451	593	312	139	79	653

* The figures in this column relate to cases of which no definite report is available for various reasons, e.g., the withdrawal from the Sanatoria or Hospital of the persons themselves before the expiration of the period for which they were nominated for the treatment.

TABLE 13.

Tables showing After History of Quiescent and
Arrested Cases (Insured).

1939.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died
I.	M	19	7	5	7	M	5	2	2	1
	F	15	8	2	5	F	7	5	1	1
II.	M	22	11	5	6	M	26	8	6	12
	F	18	8	5	5	F	10	8	1	1
III.	M	1	1	—	—	M	2	1	—	1
	F	3	1	—	2	F	2	1	1	—
	M & F	78	36	17	25	M & F	52	25	11	16

1940.

I.	M	10	7	3	—	M	2	2	—	—
	F	20	17	3	—	F	2	—	2	—
II.	M	14	9	2	3	M	22	12	5	5
	F	4	1	3	—	F	16	8	7	1
III.	M	3	1	—	2	M	—	—	—	—
	F	1	—	—	1	F	4	3	1	—
	M & F	52	35	11	6	M & F	46	25	15	6

TABLE 13—continued

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued

1941.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died
I.	M	15	8	6	1	M	7	4	—	3
	F	15	10	5	—	F	4	3	1	—
II.	M	17	12	2	3	M	22	12	6	4
	F	13	6	4	3	F	14	10	2	2
III.	M	1	—	—	1	M	2	2	—	—
	F	2	—	1	1	F	2	2	—	—
	M & F	63	36	18	9	M & F	51	33	9	9

1942.

I.	M	26	17	5	4	M	6	5	—	1
	F	24	18	3	3	F	10	8	2	—
II.	M	12	5	5	2	M	19	14	1	4
	F	12	7	2	3	F	9	5	3	1
III.	M	2	2	—	—	M	—	—	—	—
	F	2	2	—	—	F	1	1	—	—
	M & F	78	51	15	12	M & F	45	33	6	6

1943.

I.	M	35	25	8	2	M	9	7	1	1
	F	35	28	7	—	F	6	4	2	—
II.	M	15	10	2	3	M	21	17	1	3
	F	18	13	3	2	F	21	16	2	3
III.	M	2	1	—	1	M	2	—	—	2
	F	2	—	—	2	F	2	2	—	—
	M & F	107	77	20	10	M & F	61	46	6	9

TABLE 13—continued

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued

1944.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died
I.	M	56	39	8	9	M	14	11	1	2
	F	48	38	5	5	F	10	10	—	—
II.	M	14	11	2	1	M	31	25	3	3
	F	12	8	2	2	F	24	21	—	3
III.	M	1	1	—	—	M	3	2	—	1
	F	1	1	—	—	F	—	—	—	—
	M & F	132	98	17	17	M & F	82	69	4	9

1945.

I.	M	42	40	2	—	M	19	17	2	—
	F	26	17	6	3	F	20	19	—	1
II.	M	17	15	2	—	M	50	40	5	5
	F	12	10	2	—	F	40	36	4	—
III.	M	1	1	—	—	M	4	3	1	—
	F	2	2	—	—	F	4	3	—	1
	M & F	100	85	12	3	M & F	137	118	12	7

TABLE 13—continued

Tables showing After History of Quiescent and
Arrested Cases (Insured)—continued

1946.

*No Tubercle Bacilli found.**Tubercle Bacilli found.*

Stage	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died	Sex	Number of Cases marked off as Quiescent	Number known to be still living at end of 1949	Lost sight of	Died
I.	M	45	40	4	1	M	24	19	2	3
	F	27	24	2	1	F	15	13	2	—
II.	M	26	23	2	1	M	65	52	4	9
	F	12	11	1	—	F	46	41	3	2
III.	M	3	2	—	1	M	5	5	—	—
	F	3	3	—	—	F	2	2	—	—
	M & F	116	103	9	4	M & F	157	132	11	14

1947.

I.	M	52	50	2	—	M	17	14	2	1
	F	37	34	3	—	F	14	14	—	—
II.	M	36	31	3	2	M	70	67	1	2
	F	24	22	—	2	F	41	38	1	2
III.	M	1	1	—	—	M	2	1	—	1
	F	2	1	—	1	F	6	4	—	2
	M & F	152	139	8	5	M & F	150	138	4	8

1948.

I.	M	39	37	—	2	M	25	24	—	1
	F	33	32	1	—	F	13	13	—	—
II.	M	28	24	2	2	M	41	40	1	—
	F	12	11	1	—	F	35	35	—	—
III.	M	—	—	—	—	M	4	4	—	—
	F	—	—	—	—	F	4	4	—	—
	M & F	112	104	4	4	M & F	122	120	1	1

TABLE 14.

Abergele Sanatorium.

Adult Males—Respiratory.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	44	25	10	5	4	—
1941	33	15	3	11	4	4
1942	30	20	—	9	1	6
1943	38	21	1	11	5	9
1944	36	25	1	4	6	4
1945	59	45	4	7	3	—
1946	65	56	3	4	2	1
1947	51	41	4	3	3	7
1948	46	46	—	—	—	4
1949	55	54	1	—	—	2
Total ..	457	348	27	54	28	37

Adult Females—Respiratory.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	5	4	1	—	—	—
1941	4	1	2	1	—	1
1942	7	6	—	1	—	1
1943	9	5	1	1	2	—
1944	8	7	—	—	1	—
1945	3	2	1	—	—	—
1946	—	—	—	—	—	—
1947	—	—	—	—	—	—
1948	—	—	—	—	—	—
1949	—	—	—	—	—	—
Total ..	36	25	5	3	3	2

TABLE 14—continued
Abergele Sanatorium—continued
Boys—Respiratory.

Yea (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	19	17	—	1	1	2
1941	21	18	—	—	3	2
1942	16	14	—	—	2	2
1943	32	26	1	2	3	1
1944	28	23	2	—	3	1
1945	24	23	—	—	1	—
1946	38	36	1	—	1	2
1947	46	45	1	—	—	1
1948	28	27	1	—	—	—
1949	52	52	—	—	—	—
Total ..	304	281	6	3	14	11

Girls—Respiratory.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	20	13	4	2	1	—
1941	16	13	3	—	—	1
1942	17	14	1	1	1	—
1943	33	28	2	1	2	—
1944	22	16	2	—	4	1
1945	25	20	4	—	—	—
1946	30	25	2	2	1	1
1947	48	41	3	1	3	1
1948	45	44	1	—	—	1
1949	58	58	—	—	—	1
Total ..	314	272	22	7	13	6

TABLE 14—continued
Abergele Sanatorium—continued
Boys—Non-respiratory.

Year	No. of new cases	Position at the end of 1949				No. of Re-admissions
		Known to be still living	Died in the Sanatorium	Died elsewhere	Lost sight of	These are additional to the cases in Column 2 and are given to show the number of beds occupied
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1940	14	13	—	—	1	3
1941	25	19	2	—	4	2
1942	26	21	—	—	5	—
1943	24	22	1	—	1	1
1944	16	15	—	—	1	—
1945	27	26	—	—	1	3
1946	20	18	—	—	2	2
1947	18	17	1	—	—	3
1948	19	19	—	—	—	1
1949	12	11	1	—	—	—
Total ..	201	181	5	—	15	15

Girls—Non-respiratory.

Year	No. of new cases	Position at the end of 1949				No. of Re-admissions
		Known to be still living	Died in the Sanatorium	Died elsewhere	Lost sight of	These are additional to the cases in Column 2 and are given to show the number of beds occupied
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1940	11	8	—	—	3	—
1941	16	14	—	—	2	—
1942	23	22	—	—	1	—
1943	11	9	1	—	1	2
1944	15	13	2	—	—	—
1945	15	14	—	—	1	—
1946	12	12	—	—	—	—
1947	6	6	—	—	—	—
1948	16	13	3	—	—	2
1949	13	13	—	—	—	—
Total ..	138	124	6	—	8	4

TABLE 15.
Baguley Sanatorium.
Males.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	213	65	58	73	17	93
1941	181	59	48	60	14	52
1942	198	62	52	74	10	46
1943	218	75	64	63	16	53
1944	173	91	37	34	11	48
1945	196	128	32	30	6	42
1946	90	62	16	7	5	25
1947	162	81	50	26	5	62
1948	134	101	18	12	3	32
1949	120	109	9	—	2	32
Total ..	1685	833	384	379	89	485

Females.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	133	53	28	37	15	37
1941	136	55	32	39	10	29
1942	140	72	35	21	12	22
1943	167	83	38	36	10	20
1944	165	94	31	28	12	37
1945	191	100	48	27	16	26
1946	83	43	28	9	3	30
1947	148	86	43	15	4	30
1948	160	117	27	14	2	28
1949	169	154	12	3	—	39
Total ..	1492	857	322	229	84	298

TABLE 16.
Crossley Sanatorium.
Males.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	36	6	6	20	4	8
1941	32	25	2	5	—	8
1942	33	14	2	10	7	8
1943	41	25	1	11	4	9
1944	41	31	2	4	4	2
1945	32	20	2	8	2	4
1946	18	14	—	1	3	4
1947	20	17	2	1	—	4
1948	27	24	—	1	2	4
1949	31	30	—	—	1	—
Total ..	311	206	17	61	27	51

Females.

Year (1)	No. of new cases (2)	Position at the end of 1949				No. of Re-admissions These are additional to the cases in Column 2 and are given to show the number of beds occupied (7)
		Known to be still living (3)	Died in the Sanatorium (4)	Died elsewhere (5)	Lost sight of (6)	
1940	65	38	6	9	12	21
1941	45	32	4	6	3	15
1942	62	40	1	10	11	14
1943	36	26	1	5	4	10
1944	46	40	—	1	5	12
1945	48	33	1	7	7	7
1946	57	53	1	—	3	6
1947	29	25	1	1	2	8
1948	41	40	1	—	—	3
1949	41	41	—	—	—	4
Total ..	470	368	16	39	47	100

MATERNITY AND CHILD WELFARE.

By Dr. Winifred Alma Kane, Senior Assistant Medical Officer of Health
(Maternity and Child Welfare).

STAFF.

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The Midwifery Service.

The City Council's arrangements for a midwifery service under section 23 of the National Health Service Act, 1946, comprise:—

- (a) Midwives employed by the local health authority,
- (b) Midwives employed on an agency basis.

As regards (b) the City Council has agreements with the Board of Governors of the United Manchester Hospitals (St. Mary's Hospital Extern Service) and with the Manchester and Salford District Nursing Institution.

During 1949 notice of intention to practise was received from 247 midwives and 21 maternity nurses.

This number includes the following:—

Municipal midwives	70
Queen's District midwives	17
St. Mary's District midwives	13
Independent midwives	7
Midwives employed in nursing homes having no resident medical officer	21
Midwives employed in hospitals	119
Maternity nurses	21

Attendances at Notified Domiciliary Births.

Municipal Midwives and Midwives acting as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Maternity Nurses	Total
4,466	187	750	130	9	5,542

Attendances at Births in Institutions.

(a) In nursing homes	1,084
(b) In hospitals under Hospital Management Committee or Board of Governors under the National Health Service Act..	6,889
Total of notified births	<u>13,515</u>

Analysis of Domiciliary Cases taken by Midwives.

	Midwife only at the case		Midwife with doctor called in		Midwife as maternity nurse	Total cases
	Primi-parae	Multi-parae	Primi-parae	Multi-parae		
(a) Municipal midwives ..	291	2,762	137	383	893	4,466
(b) Queen's District midwives	5	81	14	15	72	187
(c) St. Mary's District midwives	85	660	—	—	5	750
(d) Independent midwives..	13	86	—	12	19	130
(e) Maternity Nurses	—	—	—	—	9	9
Total	394	3,589	151	410	998	5,542

Supervision of Midwives.

The supervision and administration of the service is undertaken by a non-medical supervisor of midwives and two assistant non-medical supervisors.

For supervisory purposes the City is divided into two parts, the midwives resident in each part being immediately supervised by an assistant non-medical supervisor.

The work of 6 maternity nurses (for the nursing of pyrexia cases and any other infectious conditions), 2 premature baby nurses and 3 ophthalmic nurses is also arranged and supervised by the supervisors of midwives.

Record of visits paid by the Supervisors.

Routine inspections at the midwives' homes	219
Supervisory visits to confinements and nursings	235
Visits to ante and post-natal clinics	68
Special visits to midwives, sickness, etc.	12
Puerperal pyrexia investigations	130
Maternal death investigations	4
To Coroner's and Magistrates' Courts	5
Hospitals and nursing homes.. .. .	6

Post-Graduate Instruction of Midwives.

A series of 6 post-graduate lectures were given in Manchester during the winter months. These lectures were very well attended, and much appreciated by the midwives.

Non-local Post-Graduate Courses.

4 post-graduate courses were arranged in other parts of the country and midwives were sent to all of these as follows:—

Liverpool	1 midwife
Oxford.. .. .	2 midwives
London (2 courses)	4 midwives
Birmingham (Midwife-Teachers' Course)	2 midwives

Midwives approved as Part II Teachers.

13 midwives are approved by the Central Midwives Board for Part II district training of pupil midwives.

25 pupils were trained during the year.

Handywomen.

Under the City of Manchester Prohibition of Unqualified Persons Order, 1939, no unqualified person is permitted to attend a woman in childbirth or during the following 10 days for gain. No contravention of this order was reported during the year.

Breach of Central Midwives Board Rules.

No case was reported.

Municipal Midwifery Service.

There were 5,163 applications for municipal midwives. 710 applications were cancelled. The reasons for cancellation were:—

(a) Transfers to hospital on medical grounds	549
(b) Miscarried	76
(c) Removals or unsuitable home conditions	85

Details of the Midwives' work:—

Total deliveries as midwife or maternity nurse.. .. .	4,466
Number of cases of miscarriage nursed	139
Visits to patients discharged from hospital before the 10th day..	5,002
Ante-natal visits to patients in their own homes	16,103
Attendance of midwives at Ante-natal Clinics	1,723
Attendance of midwives at Post-natal Clinics	95

Clinics.

Midwives hold Ante-natal Clinics at 22 of the Municipal Welfare Centres.

5 Post-natal sessions were commenced during the year, at each of which a midwife is present to assist the medical officer.

Requests for Medical Aid.

During the year, 2,269 requests for medical aid were issued. Below is a table indicating from which source these aids were sought :—

	Municipal Midwives		Queen's District Midwives		St. Mary's District Midwives	Independent Midwives		Midwives in Maternity Homes having no Resident Medical Officer		Total
	Midwife only	Doctor engaged	Midwife only	Doctor engaged	Doctor engaged	Midwife only	Doctor engaged	Midwife only	Doctor engaged	
A. <i>Ante-Natal</i>	225	26	5	1	2	4	..	1	..	264
B. <i>Mother—</i>										
(1) During labour	674	170	19	4	5	15	1	..	118	1,006
(2) During puerperium ..	241	44	3	..	3	8	..	..	10	309
C. <i>Child</i>	527	101	4	1	1	17	..	..	39	690
Totals	1,667	341	31	6	11	44	1	1	167	2,269

Artificial Feeding.

594 notifications of recourse to artificial feeding were received, 133 from midwives and 461 from institutions.

Gas and Air Analgesia.

There has been a marked increase in the number of patients who applied for gas and air analgesia during the year. 2,417 persons availed themselves of this facility as against 1,495 in 1948.

65 midwives, 2 of whom were trained during the year, are now qualified to administer gas and air analgesia, and all these midwives have been supplied with a machine.

Transport.

For those midwives who do not own a car, transport is available day or night, on application to a central depot. 33 midwives now possess their own car, and 2 have motor cycles.

Puerperal Pyrexia.

300 cases of puerperal pyrexia were notified during 1949, the rate per 1,000 total births being 22.29.

This shows an increase when compared with 1948, the rate per 1,000 total births in that year being 19.85.

225 cases were investigated in the patients' own homes.

Classification of notified cases of Pyrexia.

Notified cases—300	Abortion	Deaths from abortion	Full term and premature labour	Deaths
Puerperal Sepsis—	2—3 months .. 53	1	Normal labour .. 51	1
	3—4 „ .. 34		Abnormal labour .. 27	
	4 plus „ .. 9		—	
	Unstated .. 50		78	
224	—		Of these—	
	146		Full-term .. 64	
	—		Premature .. 14	
			—	
			78	
			—	
Puerperal Pyrexia—	—	—	Normal labour .. 51	1
			Abnormal labour .. 25	
			—	
			76	
76			Of these—	
			Full-term .. 68	
			Premature .. 8	
			—	
			76	
			—	

Incidence of Pyrexia.

	Municipal Midwives	Midwives as Maternity Nurses	St. Mary's District Midwives	Queen's District Midwives	Independent Midwives	Institutions	General Practitioners—no nursing attendance	Totals
A. (1) Infection of genital tract	18	9	4	2	—	45	—	78
(2) Abortions	—	—	—	—	—	—	146	146
B. Extra genital causes ..	7	3	1	1	—	52	—	64
C. Unclassified	3	1	1	—	—	7	—	12
Totals	28	13	6	3	—	104	146	300

The causes are as follows:—

A. (1) Due to infection of the genital tract—

Uterine infection	51
Phlegmasia alba dolens	9
Retained products of conception	6
Infected laceration	4
Pelvic abscess	2
Wound infection (Caesarian)	2
Degenerating uterine fibroid	2
Salpingitis	1
Septicaemia	1 (died)
(2) Abortions	146 (1 died)

224

B. Due to Extra-genital causes—

Urinary infection	23
Mastitis	20
Pneumonia	6
Tuberculosis	4
Tonsillitis	2
Coryza	2
Bronchitis	1
Pleural effusion	1
Chicken pox	1
Scarlet fever	1
Reaction to blood transfusion.. .. .	1
Secondary anaemia	1
Chorea gravidarum	1 (died)

C. Unclassified —64 } 76
12 }

Total 300

Maternal Deaths.

Cause	Normal full term labour	Abnormal full term labour	Abortions and premature labour	Total	Rate per 1,000 Registered live and still births	
Puerperal Sepsis .. .	1	1	4	6	1948 0·78	1949 1·19
Others .. .	1	6	3	10		

Analysis of deaths due to causes other than sepsis:—

Ruptured ectopic gestation	2
Cerebral anoxia circulatory failure following anaesthesia (Cyclo-propane and oxygen) for operation. Ruptured ectopic gestation. Death from misadventure.. .. .	1
1—(a) Secondary obstetrical shock; (b) Retained placenta; (c) Retraction ring in uterus	1
1—(a) Obstetric shock; (b) P.P.H. retained placenta (c) Manual removal of placenta P.M... .. .	1
1—(a) Obstetric shock following delivery of abnormal foetus. 2—Aggravated by intra-partum haemorrhage P.M... .. .	1
1— (a) Cardiac failure; (b) Caesarian section. 2—Patient of adreno-genital type P.M.	1
1—(a) Acute yellow atrophy of liver P.M.	1
1—(a) Acute pulmonary oedema; (b) Toxaemia of pregnancy.. .. .	1
1—(a) Post partum haemorrhage; (b) Placenta praevia; (c) Uterine rupture P.M.	1

Analysis of the 7 deaths associated with pregnancy—

1—(a) Cardiac failure; (b) Mitral Stenosis.	
2—Pregnancy	1
1—(a) Coronary embolism; (b) Endocarditis.	
2—Pregnancy of 6½ months	1
1—(a) Cardiac failure; (b) Aortic and mitral incompetence.	
2—Pregnancy delivered 6-5-49. P.M.	1
1—(a) Cardiac muscle failure; (b) Severe mitral stenosis.	
2—Acute bronchitis. 22 weeks pregnant	1
1—(a) Pleural effusions; (b) Mitral stenosis.	
2—Superadded endocarditis. Recent delivery P.M. ..	1
1—(a) Cerebral haemorrhage; (b) Hypertension; (c) Chronic nephritis.	
2—Parturition	1
1—(a) Toxaemia of pregnancy.	
2—Congenital cardiac defect (patient ductus arteriosis P.M.)	1

In addition there were 7 deaths in Manchester hospitals, where the home address was outside the area.

Attendant at Confinement when Mother subsequently died.

Cause	Municipal Midwives	Midwives as Maternity Nurses	St. Mary's District Midwives	Queen's District Midwives	Independent Midwives	General Practitioner—no nursing attendance	Institutions and Nursing Homes	Early pregnancy		Total
								Abortions	Undelivered	
Puerperal sepsis	—	—	—	—	—	—	2	3	—	5
Others	2	1	—	—	—	—	6	—	3	12
Total	2	1	—	—	—	—	8	3	3	17

Pemphigus Neonatorum.

There were 9 cases of notified pemphigus neonatorum during the year, two of whom died. All these cases were visited and nursed by the maternity nurses.

Table showing where Infection occurred.

Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
6*	2	—	—	—	1	9

* 3 were admitted to hospital—2 died.

Unnotified Cases of Skin Eruptions.

21 cases of skin infection occurred which were not notified as pemphigus, but were visited and nursed by the maternity nurses.

Table showing where Infection occurred.

Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
10	5	—	—	—	6	21

This is an increase of 11 over the number of cases of skin infection needing special nursing last year, though in that year 1 died, whereas no deaths occurred due to this cause during 1948.

Stillbirths.

Incidence of Stillbirths.

Registered Stillbirths	Notified Stillbirths— January, 1949 to January, 1950	Municipal Midwives	Midwives as Maternity Nurses	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Percentage of registered stillbirths in relation to total births
*331	429	57	22	1	13	3	333	2.46

* Including 107 cases where the mother's home address was outside the City.

The Work of the Maternity Nurses.

6 Maternity nurses are employed for the care of pyrexia cases, or any other condition considered unsatisfactory for the midwife to attend.

Summary of Visits paid by the Maternity Nurses.

Diagnosis	Number of Visits
Notified cases of puerperal pyrexia.. .. .	257
Raised temperature (not notified)	1,482
Unsatisfactory conditions of mother	1,426
Mothers where other members of the household had some infectious condition	107
Premature infants	876
Pemphigus and other skin conditions of infant	565
Unsatisfactory conditions of infants	490
Ophthalmia neonatorum	289
Puerperal pyrexia and other investigations	199
Maternal death investigations	26
Total	5,717

Premature Babies.

Owing to the increase in the number of premature infants requiring nursing in their own homes, a second nurse was appointed for the care of these babies. 271 were referred to the Department. Each baby was nursed until the weight was over 7lb. and the baby's condition was satisfactory.

Source of reference of Premature Infants.

Municipal Midwives	Queen's District Midwives	St. Mary's District Midwives	Independent Midwives	Institutions	Total
102	5	5	2	157	271

Neo-natal Mortality Rate of Premature Infants according to Birth Weight.

Weight	Survived	Died	Total	Mortality Rate per cent.
Under 3 lbs.	6	—	6	Nil
3—4 lbs.	40	1	41	2.43
4—5 lbs.	109	1	110	0.91
5 lbs.	112	2	114	1.75
Total	267	4	271	

15 babies were transferred to hospital, one of whom died.

3 removed from Manchester before attaining the weight of 7lb. 3 died after nurse had ceased attending.

Methods of Feeding when Nurse ceased to attend.

Wholly breast fed	Breast and complementary feeds	Artificial feeding	Total
135	66	70	271

Provision of Cots.

Specially prepared and heated cots are available for use in the home, on application by the doctor or midwife. The cots were in use on 89 occasions during the year.

Cases of Ophthalmia Neonatorum and Conjunctivitis in Newly Born Infants and Eye Defects in older children.

	Illegitimate	Legitimate	Total
1. Ophthalmia neonatorum—			
(a) Notified by Medical Practitioners	2	69	71
(b) Notified by the Royal Eye Hospital ..	2	21	23
2. Conjunctivitis in Newly-born (medical aids)—			
Reported by midwives :			
(a) Own cases	1	331	332
(b) Discharged from hospital before 14th day	—	40	40
3. Conjunctivitis and other eye defects in children over 14 days—			
Reported by Medical Officers of Child Welfare Clinics	4	85	89
Reported by Health Visitors, etc... ..	21	283	304
Total number of cases	30	829	859

Place of treatment for cases of ophthalmia neonatorum and conjunctivitis in the newly born.

Number of cases attending Royal Eye Hospital—

(a) In-patients	26
(b) Out-patients	41

Number of cases attended by a private doctor 792

Corneal infections.

(a) Under 14 days	—
(b) Over 14 days	1

Swabs.

Positive—G.C.	3
Negative	30

Summary of cases of ophthalmia neonatorum and conjunctivitis in the newly born.

Number discharged as recovered	830
Number discharged with damaged sight	—
Number died from any cause	—
Number removed from district	4
Number still under treatment at the end of the year ..	29

Number of Visits by Ophthalmic Nurses.

Primary	859	} Total ..	7,504
Subsequent	6,645		

**Analysis of Eye Conditions of Children over 14 days referred
by Health Visitors and Child Welfare Clinics.**

	Brought forward from 1948	New cases in 1949	Carried over to 1950
Conjunctivitis (simple)	13	322	10
Conjunctivitis (purulent).. .. .	—	16	—
Lacrimal obstruction	1	35	4
Dacryocystitis	—	2	—
Blepharitis.. .. .	—	—	—
Corneal Ulcer	—	—	—
Corneal Nebula	2	1	3
Coloboma	3	1	4
Cataract (congenital)	6	3	9
Cataract (polar)	1	—	—
Glioma	4	—	2
Defective vision	1	5	6
Microphthalmus	1	2	3
Pterigium	1	—	1
Nystagmus	3	—	4
Anophthalmus	1	2	3
Hordeolum	—	4	—
Phlyctenula	—	—	—
Albino	1	—	1
Ptosis	—	—	—
Ruptured Globe	—	—	—
Buphthalmos	—	—	—
Corneal Opacity	1	—	1
Trauma	—	—	—
	39	393	51

Sunshine Home for Blind Babies.

2 children were admitted during the year—one suffering from convergent strabismus with disseminated choroido-retinal degeneration, and one with coloboma of the right macula and a coloboma of the choroid and left macula.

Welfare Centres.

At the end of 1949 there were 25 municipal welfare centres and 2 voluntary centres. One voluntary centre is held at the Holy Name School, the medical officer and health visitor being supplied by the Corporation. Other staff at this centre is provided by the Sisters of Charity of St. Vincent de Paul. The other voluntary centre was commenced in January, 1947, and is attached to the out-patients department of the Duchess of York Hospital for Babies, Burnage. Infant sessions only are held at this centre which is staffed by the Hospital Management Committee, the maintenance cost being paid by the City Council. There were 3,170 attendances at this centre during 1949.

On 21.11.49 a new centre was opened at Newall Green, Wythenshawe, with 3 infant, 1 toddlers and 2 ante-natal sessions.

At the various centres there are 135 weekly medical consultations, comprising 68 infant, 4 toddlers', 3 sunlight and 51 ante-natal and 5 post-natal sessions. 6 infant sessions are taken by health visitors only.

At the end of the year there were on the centre registers:—

6,503 children under 1 year	} Total 14,173
3,831 children between 1—2 years	
3,839 children between 2—5 years	

168,475 attendances were made at these sessions:—

115,121 by children under 1 year.
30,794 by children between 1—2 years.
14,194 by children between 2—3 years.
5,989 by children between 3—4 years.
2,377 by children between 4—5 years.

Massage and Remedial Exercises.

Massage treatment is provided at 20 centres, where 34 sessions are held each week. At 11 centres a weekly class of remedial exercises is held for children from 2—5 years. The ailments treated are postural defects, minor deformities, and general or local poor muscular tone.

There were 12,647 attendances for massage and 5,601 for remedial exercises.

Artificial Sunlight.

Treatment by ultra-violet light is given at Chorlton-upon-Medlock, Cheetham, Newton Heath, Ardwick and Collyhurst Centres. 9 adults and 1,281 children of whom 80 were under one year old, attended for treatment. The total treatments given totalled 14,697.

The adults included expectant mothers suffering from the various discomforts of pregnancy and post-natal debility, bronchitis, asthma and rheumatism. Children were treated for adenitis, boils, asthma, rickets, anaemia and malnutrition. 202 children ceased to attend before treatment was completed. All cases discharged were asked to attend for re-examination at a period of from 2—3 months after cessation of treatment and 70 per cent. kept their appointments. 18 were recommended to have a further course of treatment.

Cookery Classes.

Practical instruction in cookery was continued at 6 welfare centres, where mothers were taught the value of food and preparation of meals.

"Make Do and Mend" Classes.

Five "make do and mend" classes were provided during 1949 for instruction and advice to the mothers in Collyhurst, Withington, Northenden, Hulme and Newton Heath districts.

Voluntary Workers.

Voluntary workers gave very useful assistance at the welfare centres during the year, making 2,043 attendances.

The Schools for Mothers Holiday Home at "Oakleigh," Marple, which was opened in 1936 for mothers and babies, was again full during the summer months. Advance payments by mothers towards the cost of their stay in the Holiday Home are received at the centres by Corporation staffs on behalf of the Schools for Mothers.

Ante-natal Clinics.

Ante-natal clinics are provided at 23 centres where a total of 51 sessions are held weekly. Five weekly sessions are held at Ardwick, four at Collyhurst and Chorlton-upon-Medlock, thrice weekly at Gorton, Harpurhey, Newton Heath, Openshaw, Northenden, Rusholme and Withington, and bi-weekly at Cheetham, Chorlton-cum-Hardy, Clayton, Levenshulme and Newall Green. Single sessions are held at Abbey Hey, Ancoats, Blackley, Crumpsall, Didsbury, Higher Blackley, Hulme and Moston. At two of the centres the clinics are combined with V.D. treatment for mothers and children.

An ante-natal clinic was opened at the Didsbury Centre on 1st November, 1948, one at Higher Blackley on the 23rd April, 1949, and two at Newall Green on the 21st November, 1949.

8,518 new mothers presented themselves and 43,141 attendances were made.

Midwives sessions are held at most of the centres. At Ardwick, Chorlton-upon-Medlock, Collyhurst, Didsbury, Harpurhey, Rusholme, Newall Green and Withington they are combined with the ante-natal clinics and at Blacklëy, Cheetham, Chorlton-cum-Hardy, Clayton, Gorton, Higher Blackley, Hulme, Moston, Newton Heath, Northenden, and Openshaw, they are held on a separate day.

In addition to the ante-natal sessions provided at these welfare centres, there are ante-natal clinics at St. Mary's Hospital and Crumpsall and Withington Hospitals.

Post-natal Clinics.

Every attempt was made to secure the attendance of mothers for post-natal examination and during 1949 five sessions for post-natal examinations only were commenced at Ardwick, Chorlton-upon-Medlock, Northenden, Collyhurst and Openshaw centres where 701 mothers made 753 attendances.

Prior to the commencement of post natal clinics, 229 mothers made 287 attendances for post-natal examination at ante-natal clinics.

Ante- and Post-natal Exercises.

Exercises for mothers attending during the ante-natal period are held at nine welfare centres and 2,052 attendances were made. Post-natal exercise classes were held at the five post-natal sessions and 442 attendances were made.

The purpose of this treatment is to improve the condition of mothers before and after confinement.

Ailing Children.

Hospital Treatment.

The arrangement prior to 5th July, 1948, comprised 20 beds for children under 1 year and 10 for children between 1—3 years which were retained at the Duchess of York Hospital for Babies, together with 180 beds for children under 5 years at Booth Hall Hospital.

Recommendations for admission to these beds were made by medical officers of welfare centres administered by the Department.

Since 5th July, 1948, the hospitals concerned have been administered by the Manchester Babies and Children's Hospital Management Committee, but there is still co-operation with the Health Department in admission of cases.

Dental Clinics.

Sessions for dental treatment of nursing and expectant mothers and for children are held weekly at Chorlton-upon-Medlock and Cheetham Centres. Dental treatment is given followed by three or six monthly invitations for further inspection and treatment.

Centre	Number on Register on 1st Jan., 1949	Number of new cases during 1949	Transferred from another Centre during 1949	Total	Number still on Register 1st Jan., 1950	Number of full-term births (alive and stillborn)	Full-term stillbirths included in previous column	Number of premature births	Premature stillbirths included in previous column	Number of Mothers left district before confinement	Transferred to another Centre	Number of Mothers not pregnant	Totals
Abbey Hey	35	112	1	148	37	99	3	4	1	4	1	3	148
Ancoats	38	146	—	184	32	132	2	11	—	1	6	2	184
Ardwick	216	568	12	796	188	553	10	31	2	8	10	6	796
Blackley	153	241	3	397	86	243	10	8	—	11	40	9	397
Cheetham	198	413	7	618	111	426	4	20	10	25	18	18	618
Chorlton-upon-Medlock	124	308	1	433	99	288	3	15	2	17	3	11	433
Chorlton-cum-Hardy	96	285	1	382	91	256	3	6	2	24	3	2	382
Clayton	98	305	2	405	88	260	2	24	7	20	5	8	405
Collyhurst	268	857	27	1,152	267	786	13	60	20	3	16	20	1,152
Crumpsall	90	193	12	295	74	199	5	8	5	7	3	4	295
Didsbury	48	129	9	186	51	117	1	6	—	3	5	4	186
Gorton	213	605	4	822	165	576	3	44	15	10	12	15	822
Harpurhey	216	411	5	632	122	437	9	24	8	8	27	14	632
Higher Blackley	—	85	26	111	49	53	1	6	4	1	1	1	111
Hulme	74	255	1	330	79	213	2	18	6	11	3	6	330
Levenshulme	131	307	7	445	116	292	4	13	3	15	4	5	445
Newall Green	—	27	36	63	56	7	—	—	—	—	—	—	63
New Moston	99	310	20	429	98	289	1	21	12	10	7	4	429
Newton Heath	181	380	10	571	145	353	9	25	7	23	15	10	571
Northenden	194	644	34	872	199	568	3	33	7	24	33	15	872
Openshaw	315	779	14	1,108	251	754	12	50	14	19	12	22	1,108
Rusholme	253	676	3	932	222	625	11	38	8	26	10	11	932
Withington	263	481	13	757	180	537	3	5	4	20	10	5	757
Totals	3,303	8,517	248	12,068	2,806	8,063	114	470	137	290	244	195	12,068

Minor Ailments.

190 children under 5 years were referred from the welfare centres to school clinics for treatment for the eyes, ears, skin, etc. 155 children were still undergoing treatment for ailments which had not been cured in 1948, thus the total number of children was 345.

The classification of ailments and the attendance of these children is shown, also the number who finished treatment.

Where attendance ceased before treatment was completed, and where non-attendance was reported, the health visitors endeavoured to secure attendance or re-attendance as necessary.

Treatment of Minor Ailments.

Ailment	New cases referred	Still under treatment from 1948	Total	Reported not attending	Ceased attending but not finished treatment	Still under treatment	Finished treatment
Squint	31	19	50	—	—	40	10
Other eye affections	71	49	120	1	—	97	23
Otorrhoea	36	44	80	—	—	61	19
Other ear affections	19	12	31	—	—	18	13
Affections of nose	1	—	1	—	—	1	—
Impetigo	17	14	31	—	—	23	8
Other skin affections	10	13	23	—	—	12	11
Miscellaneous	5	4	9	—	—	8	1

Dried Milk and Vitamised Foods.

The Health Committee continue to afford facilities in their welfare centres for the distribution of National dried milk, cod liver oil, orange juice, etc. Proprietary brands of dried milk were sold also to mothers attending the centres.

A quantity of these brands and National dried milk were supplied free by the department on the recommendation of the centre medical officers at a total cost of £346 11s. 5d.

Mothercraft Exhibition.

The Maternity and Child Welfare Mothercraft Exhibition comprises seven sections, viz.: ante-natal, child health, play therapy, nutrition, "safety first," patterns and clothing from birth to five years, and handicrafts.

The exhibition material is always available to health visitors for purposes of health education and sections of the exhibition travel round the welfare centres in rota, remaining for a fortnight at each centre. Sections are also loaned to the Manchester Education Department and to other local authorities, and the whole exhibition, with new portions which are added from time to time, is shown at the annual refresher course for health visitors, which is held in Manchester.

Handicraft classes have been continued in the maternity and child welfare centres, and the mothers are taught a knowledge of colour and design, smocking, embroidery, leather work, making shopping bags, slippers, gloves, etc. Handloom weaving and the making of cushions, scarves, skirt material and hand towels is also taught.

Mothers' Evening Club.

With the approval of the Health Committee, an Evening Club was formed at Cheetham Maternity and Child Welfare Centre in order to allow mothers who normally attend the Centre to meet there fortnightly on Wednesday evening from 7 to 9 p.m. A Committee of six mothers was elected, together with a president, chairman, honorary secretary, honorary treasurer, and a librarian.

The activities of the Club include talks, discussions, and hobbies. The Club has a library and issues a small monthly magazine, and refreshments are served at meetings at a charge of 4d. per person.

Membership numbers 72 and there is no subscription, though donations have been given by voluntary helpers who attend the Club.

A number of talks, discussions and social events took place during 1949.

Children attending Child Welfare Centres, 1949.

Centre	On Register, January 1st, 1949			New attendances			On Register, January 1st, 1950		
	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years	0—1 year	1—2 years	2—5 years
Abbey Hey	283	240	140	323	29	44	244	190	163
Ancoats	112	93	71	140	21	43	84	47	56
Ardwick	321	222	239	476	78	94	340	194	191
Blackley	227	230	217	246	23	65	202	122	190
Chorlton-upon-Medlock	227	184	115	318	59	97	219	126	158
Cheetham	264	199	172	367	52	59	357	88	113
Clayton	214	181	89	283	18	35	195	73	54
Collyhurst	281	245	167	562	64	110	345	161	135
Chorlton-cum-Hardy	311	294	222	487	44	89	363	253	237
Crumpsall	136	116	85	200	23	41	181	107	91
Didsbury	201	214	189	216	16	49	194	134	155
West Gorton	305	244	273	452	50	66	303	170	110
Harpurhey	425	303	185	424	35	71	305	196	138
Higher Blackley	164	164	160	143	9	41	125	115	155
Holy Name	35	33	66	100	21	21	89	16	57
Hulme	183	143	63	239	25	35	125	83	52
Levenshulme	438	364	229	502	27	61	492	228	183
Newton Heath	347	263	182	349	33	88	221	187	154
Newall Green	—	—	—	40	66	58	123	66	58
New Moston	218	204	147	268	30	78	217	148	149
Northenden	310	262	250	353	94	188	271	174	296
Openshaw	295	203	298	569	55	140	386	185	184
Rusholme	466	270	164	565	64	75	452	218	186
Sharston	269	291	165	303	79	133	243	229	252
Withington	445	366	168	461	48	72	365	225	231
Hart Road, Wilbraham	185	201	142	171	34	56	151	112	148
Totals	6,662	5,529	4,198	8,557	1,097	1,909	6,592	3,847	3,896
Total, 1948	9,910	3,855	2,814	9,526	1,057	1,526	6,662	5,529	4,198

Care of Illegitimate Children and their Mothers.

The departmental arrangements for the care of illegitimate children and their mothers include investigation, advice and assistance. Cases are referred by officers of the Maternity and Child Welfare Section of the Health Department, hospital almoners, probation officers, general medical practitioners, and social workers of voluntary organisations.

The health visitor specially appointed for these duties has been assisted by one full-time health visitor and occasionally by health visitors doing part-time duties.

The work has continued to increase, due to a larger number of cases requiring assistance with affiliation orders, more cases needing further supervision and duties connected with the Health Committee's hostel for illegitimate babies and their mothers at Knowle House, Handforth.

The following particulars indicate the extent of the work in connection with the care of illegitimate children and their mothers :—

Office interviews	.. .. .	1,455
Home visits	.. .. .	1,325
Visits to Knowle House	.. .. .	83
Visits to hospitals	.. .. .	76
Interviews with social workers and health visitors	.. ..	289
Attendances at Magistrates' Courts	.. .. .	92
		<hr/>
Total visits and interviews	.. .. .	3,320
		<hr/>

Particulars of mothers dealt with by the Welfare Officer :—

	Births Pending	Live Births	Still Births	Mis- carriages	Total
Single	66	184	4	1	255
Married	17	47	1	2	67
Widows	2	9	2	—	13
Divorced	1	6	—	—	7
Parents married before birth of child..	4	—	—	—	4
Mother removed from district	15	—	—	—	15
Totals	105	246	7	3	361

The total number of illegitimate children dealt with by the Welfare Officer was 886, comprising :—

233 children of mothers seen in the post-natal period only.

246 children of mothers seen in the ante-natal period during 1949.

71 children of mothers seen in the ante-natal period during 1948.

336 children whose cases were re-investigated or had been carried forward from previous years.

Particulars of Illegitimate Children remaining with their Mothers.

Mothers	In lodgings or absorbed into family	With mother and putative father	With mother and awaiting adoption	With mother in a hostel	Parents subsequently married	Removed from Manchester	No trace	Deaths	Total
Single ..	355	84	1	5	15	28	9	11	508
Married ..	83	54	1	3	—	6	1	3	151
Widow ..	21	7	—	—	1	—	—	—	29
Divorcee ..	13	10	—	1	3	—	—	—	27
Totals..	472	155	2	9	19	34	10	14	715

Particulars of Illegitimate Children apart from their Mothers.

Mothers	With adopters	With relatives	With foster mothers	In residential homes	Deaths	Total
Single	66	23	14	23	—	126
Married	23	2	5	4	—	34
Widow	2	—	1	3	—	6
Divorcee	3	—	—	2	—	5
Totals	94	25	20	32	—	171

The action taken by the Welfare Officer as regards cases referred to the Department was as follows :—

Admissions arranged to—

Knowle House Hostel	79
Voluntary hostels	17
Hospitals	9
Institutions	12

Ante-natal care arranged	19
----------------------------------	----

Cases referred to—

Children's Department	149
Welfare Services Department	17
Poor Man's Lawyer Association	38
National Assistance Board	78
Catholic Moral Welfare Council	34
Diocesan Council for Moral Welfare	18
Manchester and Salford Methodist Mission	14
National Society for the Prevention of Cruelty to Children	19
District Provident and Charitable Organisation	9
City League of Help	3

Assistance given—

To find lodgings	8
To secure employment	11
Provision of clothing from departmental sources ..	73
Provision of perambulators from departmental sources	4
Provision of clothing by voluntary organisations ..	37
Advice given <i>re</i> —	
Affiliation orders	157
National Health maternity benefit	154
Hostel accommodation	144
Adoption	98
Day Nursery accommodation	108
Day minders	19
Miscellaneous matters	108

Regular visits were paid to 147 families requiring close supervision.

The Welfare Officer received 92 applications for assistance in securing affiliation orders. These were dealt with as follows :—

Referred to—

Poor Man's Lawyer Association	26
Private solicitors	5
National Assistance Board	7
Voluntary organisations	2
Dealt with by Welfare Officer	52

84 applications for affiliation orders were heard by the Manchester Magistrates' Court and were dealt with as shown :—

Assistance given by	Orders Granted	Orders Refused
Welfare Officer	52	—
Poor Man's Lawyer Association	18	2
Private Solicitors	5	—
National Assistance Board	3	2
Voluntary Organisation	2	—
Totals	80	4

Mother and Baby Home, "Knowle House," Handforth.

Mothers and babies are admitted to this home, which is administered by the Health Committee, for the following reasons :—

- Mother and baby being homeless, either because prior to her confinement the mother had been living in an institution, hostel or lodgings or had been engaged in work of a residential character.
- Relatives unwilling to allow the mother to return home with her illegitimate baby.
- Overcrowded or unsatisfactory home conditions.

In these cases the Welfare Officer arranges for the admission of mothers and babies to " Knowle House " and makes suitable arrangements for them on their discharge.

On 1st January, 1949, there were 9 mothers and 9 babies in Knowle House, and from this date to the end of the year 78 mothers, 2 of whom had twins, were admitted with their babies, a total of 80 babies. One expectant mother was admitted and at the 31st December, 1949, there were in Knowle House 8 mothers, 9 babies and 1 expectant mother. The average period of stay was 6 weeks.

On discharge from Knowle House the 80 babies were accommodated as follows :—

Babies with mother—

In maternal grandparents' home	12
In lodgings	3
In residential domestic employment	3
In institution	3
In Church of England hostel	1

Babies apart from mother—

In homes of adopters	50
In homes of foster mothers	6
In residential nurseries	2

The 79 mothers discharged were accommodated as follows :—

With baby—

In maternal parents' home	12
In lodgings	3
In residential domestic situation	3
In institution	3
In Church of England hostel	1

Apart from baby—

In maternal parents' home	26
In lodgings	15
In residential domestic situation	16

Recuperative Centre.

By arrangement with the Community Council of Lancashire, mothers and children are admitted to the Brentwood Recuperative Centre, Marple, Cheshire, on recommendations of the Maternity and Child Welfare Section, the cost of maintenance being borne by the Health Committee. Since 5th July, 1948, provision for these arrangements has been made in the City Council's scheme for prevention of illness, care and after-care under Section 28 of the National Health Service Act, 1946.

Admissions to the Centre during 1949 comprised 12 mothers whose ages were from 25 to 39 years, 4 children under 1 year, and 29 children from 1 to 5 years.

Eleven families remained for the full period of 6 weeks, the other 1 having to return home after 4 days owing to the husband's illness.

The four primary reasons for recommending the mothers for admission to Brentwood are :—

- (1) Lack of training and experience in housewifery and child management.
- (2) Ill-health and lowered vitality due to too rapid child bearing, depressing surroundings and environment, and possibly in the case of some mothers, malnutrition.
- (3) Unsatisfactory home conditions, including lack of domestic facilities.
- (4) Difficulties between parents, causing the mother to lose interest in her home and children.

Marked improvement in both mental and physical condition of the family is evident after a stay in Brentwood. In most cases the mothers look more alert and happy, find pleasure in household tasks, and the children benefit greatly from the training given in the Centre. By frequent visits from the health visitor it is hoped to maintain and still further improve the standard of living of these families.

Health Visiting.

Health visitors supervise generally the nutrition and development of children under school age, the health and welfare of their mothers, and the teaching of mothercraft. Further duties were imposed on health visitors from 5th July, 1948, by Section 24 of the National Health Service Act, 1946, which requires every local authority to make provision for the visiting of persons in their own homes by health visitors, for the purpose of giving advice as to the care of young children, persons suffering from illness, and expectant or nursing mothers, and as to measures necessary to prevent the spread of infection. There has been a considerable increase in the work of health visitors during 1949 in connection with aged and infirm persons and the follow-up of discharged hospital patients. In December, 1949, the health visitors had under observation 61,558 children under 5 years of age.

Notification of Births.

The total number of notifications was 15,002, compared with 16,312 in 1948 and 18,197 in 1947. A number of these were notified by St. Mary's Hospital, Prestbury.

Source of Notification and Place of Birth.

Manchester		St. Mary's Hospital, Prestbury		Totals	
Live	Still	Live	Still	Live	Still
13,254	385	1,343	20	14,597	405

Total registered births numbered 13,460 and of these 918 were illegitimate.

It has been possible in 13,240 births (12,930 live births and 310 stillbirths), representing 98 per cent of the total registered births in the City, to consider the place in the family of each birth, and this is shown in the following tables.

Full time and premature births have been separated, the accepted standard birth weights of 5½lb. or under for premature babies having been adopted in 1938,

Births investigated during 1949 to show place in family.

Place in Family	Live Births				Live Births		Still-births				Still-births		Live and Still-births
	Legitimate		Illegitimate		1949	1948	Legitimate		Illegitimate		1949	1948	
	Full time	Pre- mature	Full time	Pre- mature			Full time	Pre- mature					
					Per cent.	Per cent.			Per cent.	Per cent.			
1st	4,135	325	317	36	53	39	10	4	34.19	35.59	37.15		
2nd	3,602	232	134	16	38	35	—	3	24.52	19.94	30.66		
3rd	1,813	115	88	5	29	20	1	2	16.77	13.19	15.66		
4th	816	61	48	7	14	14	1	—	9.36	9.81	7.26		
5th	426	37	38	3	7	7	—	3	5.48	5.21	3.94		
6th	240	19	14	3	6	2	—	—	2.58	6.13	2.14		
7th	138	12	13	—	4	2	—	—	1.94	3.37	1.28		
8th	87	2	5	—	4	2	—	1	1.94	3.07	.75		
9th	48	6	8	—	2	—	—	—	.97	2.45	.49		
10th	31	2	1	—	2	2	—	—	1.29	.62	.29		
11th	20	—	—	—	1	—	—	—	.32	.62	.16		
12th	7	2	—	—	1	—	—	—	.32	—	.08		
13th	3	—	1	—	1	—	—	—	.32	—	.04		
14th	6	—	—	1	—	—	—	—	—	—	.05		
15th	2	—	—	—	—	—	—	—	—	—	.01		
16th	—	—	1	—	—	—	—	—	—	—	.01		
17th	—	—	—	—	—	—	—	—	—	—	—		
18th	3	—	—	—	—	—	—	—	—	—	.02		
19th	—	—	1	—	—	—	—	—	—	—	.01		
Totals	11,377	813	669	71	162	123	12	13	100.00%	100.00%	100.00%		
12,930				310				13,240					

It is interesting to compare the size of the average family and the age of the mother of each new investigated birth in 1949 as compared with 1935 when the analysis was first made. Tables for these two years are as follows :—

(1) Age of mothers at birth of children during 1949
showing place in family of each birth.

Age Groups Years	Place in Family																		Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	18	19	
15—	425	37	4	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	467
20—	2,130	1,062	265	66	13	—	1	—	—	—	—	—	—	—	—	—	—	—	3,537
25—	1,575	1,649	773	311	107	47	13	3	1	1	—	—	—	—	—	—	—	—	4,480
30—	490	824	581	278	176	73	38	33	12	9	2	1	—	—	—	—	—	—	2,517
35—	228	398	347	227	158	115	77	31	30	12	4	3	—	1	1	—	1	—	1,633
40—	55	72	80	70	59	43	37	22	18	11	10	2	4	4	1	1	—	—	489
45—	2	1	9	7	6	4	3	9	4	5	5	4	1	2	—	—	2	1	65
50—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	—	3
	4,905	4,043	2,059	960	520	282	169	100	65	38	21	10	5	7	2	1	3	1	13,191

(2) Age of mothers at birth of children during 1935
showing place in family of each birth.

Age Groups Years	Place in Family																		Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	19	
15—	294	25	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	320
20—	1,617	718	184	39	9	1	1	—	—	—	—	—	—	—	—	—	—	—	2,569
25—	1,419	1,054	540	253	97	44	19	2	2	—	—	—	—	—	—	—	—	—	3,430
30—	489	627	486	337	207	140	74	50	17	7	5	1	—	—	—	—	—	—	2,440
35—	118	288	235	194	159	132	111	88	65	30	16	6	4	1	2	—	—	—	1,449
40—	18	40	50	68	69	53	53	40	31	32	18	6	7	5	1	1	1	1	494
45—	—	2	—	5	9	6	4	1	6	7	5	5	4	3	1	—	—	—	58
	3,955	2,754	1,496	896	550	376	262	181	121	76	44	18	15	9	4	1	1	1	10,760

The 1949 births are further analysed to show the difference between legitimate and illegitimate births and live and still-births.

Age of mothers at birth of live children during 1949.
(A) Place in family of each investigated birth (legitimate).

Age Groups Years	Place in Family																Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	18	
5— ..	349	32	4	1	—	—	—	—	—	—	—	—	—	—	—	—	386
0— ..	1,939	1,005	250	60	13	—	1	—	—	—	—	—	—	—	—	—	2,268
5— ..	1,459	1,583	719	281	91	41	9	3	1	—	—	—	—	—	—	—	4,187
0— ..	450	772	548	257	162	70	34	31	11	7	1	1	—	—	—	—	2,344
5— ..	203	364	321	211	137	105	67	31	25	12	4	3	—	1	1	1	1,486
0— ..	46	61	69	61	53	38	36	16	15	9	10	1	3	3	1	—	412
5— ..	2	1	5	6	5	4	3	6	2	5	5	4	—	2	—	2	52
0— ..	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	3
	4,448	3,818	1,916	877	464	258	150	89	44	33	20	9	3	6	2	3	12,138

(B) Place in family of each investigated birth (illegitimate).

Age Groups Years				Place in Family												Total Births	
				1	2	3	4	5	6	7	8	9	10	13	14		16	19
15—	..	..	..	71	4	—	—	—	—	—	—	—	—	—	—	75
20—	..	..	..	140	43	11	4	—	—	—	—	—	—	—	—	198
25—	..	..	..	83	46	36	26	10	6	4	—	—	—	—	—	211
30—	..	..	..	30	29	20	12	8	3	2	1	—	—	—	—	105
35—	..	..	..	18	22	18	8	20	5	6	—	4	—	—	—	101
40—	7	6	5	4	3	3	1	3	2	1	1	1	—	38
45—	—	—	2	—	—	—	—	1	2	—	—	—	1	6
				349	150	92	54	41	17	13	5	8	1	1	1	1	734

Age of mothers at birth of stillborn children during 1949.

(A) Place in family of each investigated stillbirth (legitimate).

Age Groups Years	Place in Family													Total Births
	1	2	3	4	5	6	7	8	9	10	11	12	13	
15—	4	1	—	—	—	—	—	—	—	—	—	—	—	5
20—	42	13	3	—	—	—	—	—	—	—	—	—	—	58
25—	29	20	18	4	5	—	—	1	—	1	—	—	—	78
30—	10	21	12	10	5	—	2	—	1	2	1	—	—	64
35—	5	12	8	8	1	5	4	3	1	—	—	—	—	47
40—	2	5	5	5	2	2	—	2	—	1	—	1	—	25
45—	—	—	1	1	1	—	—	—	—	—	—	—	1	4
	92	72	47	28	14	7	6	6	2	4	1	1	1	281

(B) *Place in family of each investigated stillbirth (illegitimate).*

Age Groups Years						Place in Family						Total Births
						1	2	3	4	5	9	
15—	..	..	..	..	..	1	—	—	—	—	—	1
20—	..	..	..	..	..	9	1	1	—	—	—	11
25—	..	..	..	..	..	2	—	—	1	1	—	4
30—	..	..	..	..	..	—	2	1	—	1	—	4
35—	..	..	..	..	..	2	—	—	—	—	—	2
40—	..	..	..	..	..	—	—	1	—	1	1	3
45—	..	..	..	..	..	—	—	—	—	—	—	—
						14	3	3	1	3	1	25

Stillbirths.

The number of stillbirths allocated to the health visitors for investigation was 306.

Found Children.

The health visitors found 1,621 other children belonging to families which had moved into Manchester during the year. The year of their birth was as follows :—

478 born 1949.
 367 „ 1948.
 294 „ 1947.
 364 „ 1946.
 118 „ 1945.

Deaths.

597 deaths occurred amongst children under 5 years of age.

The classification according to age is :—

502 children under 1 year.

36 „ 1—2 years.
 24 „ 2—3 years.
 21 „ 3—4 years.
 14 „ 4—5 years.

The distribution according to age of children who died under 1 year was as follows :—

Died under 1 day	Died 1 to 7 days	Died 1 week to 4 weeks	Died 1 month to 3 months	Died 3 months to 6 months	Died 6 months to 9 months	Died 9 months to 12 months	Total
93	103	45	104	80	45	32	502

The following table gives mortality rates for the past ten years amongst children 1—5 years. This is based upon the number of live births for the year.

**Infant Mortality Rate and Case Mortality Rates
for Measles and Whooping Cough.**

Year	Infant Mortality Rate	Mortality Rate 1—2 years	Mortality Rate 2—5 years	Mortality Rate 1—5 years	Total cases of Measles		Total known cases of Whooping Cough	
					Cases	Mortality Rate per cent	Cases	Mortality Rate per cent
1940 ..	70·18	10·2	10·8	21·0	14,844	·19	670	1·04
1941 ..	84·47	10·6	16·3	26·9	3,869	·52	4,715	1·38
1942 ..	64·52	5·5	7·6	13·1	10,468	·16	1,103	1·45
1943 ..	60·88	5·9	6·8	12·7	4,419	·27	3,277	1·28
1944 ..	53·59	5·6	3·8	9·4	6,736	·13	2,003	1·30
1945 ..	55·80	3·7	6·0	9·7	5,596	·14	1,835	1·36
1946 ..	63·71	3·7	3·9	7·7	3,800	·08	2,265	1·41
1947 ..	59·76	4·1	3·4	7·5	9,008	·23	2,308	·78
1948 ..	42·12	3·2	3·9	7·1	10,650	·16	2,612	·73
1949 ..	38·24	2·7	4·5	7·2	6,485	·11	2,749	1·05

**Infant and Child Mortality per 1,000 Births.
Quinquennial periods 1911—1949.**

Quinquennial Period	Infant Mortality	Child Mortality, 1—2 years	Child Mortality, 2—5 years
1911—1915	133·13	45·0	35·5
1916—1920	104·51	34·9	34·3
1921—1925	95·85	34·2	23·9
1926—1930	87·88	26·2	20·9
1931—1935	77·34	18·3	17·6
1936—1940	70·81	11·3	11·3
1941—1945	63·85	6·3	8·1
1946	63·71	3·7	3·9
1947	59·76	4·1	3·4
1948	42·12	3·2	3·9
1949	38·24	2·7	4·5

Expectant Mothers.

Health visitors also visited at the end of six months all mothers who had given birth to a stillborn child or to a child who had died before reaching the age of 1 month, in order to ensure adequate ante-natal care should she subsequently become pregnant. 376 stillbirths and 272 neo-natal deaths occurred in the City during 1948 and 1,155 special visits were made by the Health Visitors during 1949 to those mothers. In this way 55 expectant mothers who might require special care were brought to the notice of the Department.

Causes of Death in Children under 1 year.

Manchester figures (52 weeks.)

Ward	Deaths of children under 1 year	Bronchitis and Pneumonia	Prematurity	Debility and Marasmus	Dystocia	Enteritis	Convulsions	Tuberculosis	Syphilis	Accidental Deaths	Influenza	Measles	Whooping Cough	Other Causes
All Saints	15	2	5	—	—	2	—	—	—	—	—	—	1	5
Ardwick	15	1	1	—	—	7	2	1	—	—	—	—	—	3
Beswick	19	5	—	—	—	4	—	—	—	—	—	—	—	10
Blackley	22	5	5	1	—	—	1	—	—	2	1	—	1	6
Bradford	15	3	—	—	—	2	1	—	—	—	—	—	—	9
Cheetham	10	1	2	—	—	—	—	—	—	—	—	—	1	6
Chorlton-cum-Hardy	15	1	1	—	1	2	1	—	—	—	—	—	1	8
Collegiate	12	1	1	—	—	1	1	—	—	1	—	—	1	6
Collyhurst.. .. .	13	3	1	—	—	1	—	—	1	1	1	1	1	3
Crumpsall	19	1	3	—	2	2	1	—	—	—	—	—	1	9
Didsbury	9	1	3	1	—	1	—	—	—	—	—	—	—	3
Gorton North	9	—	2	—	—	1	—	—	—	—	—	—	—	6
Gorton South	8	4	—	—	—	—	—	—	—	—	—	—	—	4
Harpurhey	17	4	4	1	—	—	1	—	—	—	—	—	1	6
Levenshulme	3	1	1	—	—	1	—	—	—	—	—	—	—	—
Longsight	15	3	3	—	—	1	—	—	—	—	—	—	—	8
Medlock Street	17	7	3	—	—	1	—	—	—	—	—	—	—	6
Miles Platting	9	—	2	1	—	3	—	—	—	—	—	—	2	1
Moston	15	2	3	—	—	—	—	1	—	1	—	—	—	8
Moss Side East	34	10	2	—	—	1	—	1	—	1	—	—	—	19
Moss Side West	18	1	4	1	—	1	1	—	—	1	—	—	4	5
New Cross	13	2	4	—	—	3	2	—	—	—	—	—	—	2
Newton Heath	14	5	3	—	—	—	1	—	—	1	—	—	—	4
Openshaw	15	1	1	—	2	2	—	—	—	—	—	—	1	8
Rusholme	16	1	2	—	—	3	—	—	—	1	—	—	1	8
St. Clement's	1	—	1	—	—	—	—	—	—	—	—	—	—	—
St. George's	20	8	2	—	—	2	1	—	—	—	—	—	—	7
St. John's	3	2	—	—	—	—	—	—	—	—	—	—	—	1
St. Luke's	23	7	2	—	—	7	—	—	—	—	—	—	—	7
St. Mark's	23	5	2	2	—	4	1	—	—	—	1	—	—	8
St. Michael's	14	5	1	—	—	—	—	—	—	—	—	—	—	8
Withington	24	2	5	—	1	2	1	1	—	—	—	—	1	11
Wythenshawe.. .. .	27	8	3	—	1	3	2	—	—	—	—	—	2	8
Total	502	102	72	7	7	57	17	4	1	9	3	1	19	203

Welfare of Women and Children on Canal Boats.

None of the Manchester canal carrying companies allow women and children on board their boats, but they are to be found on some " narrow " boats which come into the City. Canal boats remain at their tying-up places for short periods varying from a few hours to two days. It is only possible for any families concerned to be seen once by the health visitor, who gives suitable advice, including particulars of the facilities for obtaining vitaminised foods, etc., and services at the nearest Welfare Centre, which is situate only a short distance from the three main tying-up places in the City.

Seven " narrow " boats were visited and found to have women and children on board. Five families were from Wolverhampton, one from Stoke-on-Trent, and one from Tunstall. The total number of children was 19, whose ages were as follows :—

Under 1 year	..	..	..	..	..	2
1 to 2 years	..	..	..	..	..	1
2 to 3 years	..	..	..	..	..	3
3 to 4 years	..	..	..	..	..	4
4 to 5 years	..	..	..	..	..	3
Over 5 years	..	..	..	..	..	6

In one instance there were 5 children on board the boat, with ages ranging from $1\frac{1}{2}$ to 7 years, and the mother was pregnant. In another instance there were 4 children, 3 of whom were recovering from measles.

The eldest child, 9 years of age, was unable to read or write, and the mother, who was six months pregnant, had made no arrangements for her confinement. On another boat where there were 3 children, the eldest child of 9 years was unable to read or write. A child 4 months old in one boat was found to have had a fall on to his face from a bunk during the previous week. Two boats were reported to have dirty and untidy cabins.

These conditions clearly demonstrate the need for total prohibition of women and children on canal boats and the desirability of amending the Canal Boats Regulations accordingly.

Co-operation with School Health Service.

A report on every child reaching school age and known, on the health visitor's final visit, to be suffering from medical defect or to have an unsatisfactory family history, is referred to the School Health Department ; 724 such summaries were sent during the year, classified as follows :—

Unsatisfactory condition in child	..	..	..	533
History of tuberculosis in child	..	..	..	12
History of tuberculosis in family	..	..	..	98
History of rheumatism in child	..	..	..	11
History of rheumatism in family	..	..	..	55
Unsatisfactory history in family	..	..	..	15
				<hr/>
Total	..	..	..	724

Care of Aged and Infirm Persons.

Special provision is made in the National Assistance Act, 1948, for securing the necessary care and attention for persons who :—

- (a) are suffering from grave chronic disease or, being aged, infirm, or physically incapacitated, are living in insanitary conditions ; and
- (b) are unable to devote to themselves, and are not receiving from other persons, proper care and attention.

279 cases of aged and infirm persons whose circumstances were reported to be unsatisfactory were brought to the notice of the department during the year and there were 8 cases brought forward from 1948 ; 680 visits were paid by health visitors.

In dealing with these cases, the department continued to maintain close liaison with the Welfare Services Department, Manchester and Salford District Nursing Institution, and hospital almoners.

Details follow with regard to the action taken to deal with the cases reported.

Voluntary admissions to hospital :—

[illegible]

Admitted to

Mental Home	2
Little Sisters of the Poor	3
Home for Blind	1
Private Nursing Homes	4
Hospital in Bath	1

Referred to

Mental Health Section	3
National Assistance Board.. .. .	10
Welfare Services Department	21
Blind Aid Society	4

Died before admission to hospital	42
Recovered (nursed at home)	1
Removed to a relative's home	1
Compulsory removals under Section 47 of the National Assistance Act, 1948	15
No further action necessary	12
Carried forward at 1st January, 1950	51
	<hr/> 287

Total number of visits paid during period 1st January, 1949,
to 31st December, 1949 680

**Particulars of Persons dealt with under Section 47 of
the National Assistance Act, 1948.**

During the Year 1949.

Total number dealt with	15
Number admitted to Part III accommodation	9
Number admitted to Regional Hospital Board Accommodation ..	6
<hr/>	
Died during the year	6
Transferred to Jewish Home for Aged Persons	1
Still in Part III Accommodation	5
Still in Regional Hospital Board Accommodation	3
	<hr/> 15
Number still alive at the year end.. .. .	8

Section 47—National Assistance Act, 1948.

Cases during 1949.

Reason for Council's action	Period named in the order of the Court	Type of accommodation to which the person was removed	Ultimate result of Council's action	Other information of interest
Dirty verminous condition of person and premises.	3/12	Chronic Sick Ward.	Died.	Private income. Only relative a nephew.
Filthy conditions. Senility. Refuses to allow anyone to clean the house.	3/12 Extension of Order for further 3/12.	Part III	Transferred to Jewish Home for Aged Persons.	Reported to have private income. Relatives—daughter lives in Middlesex.
Frail and dirty. Senility. No one to give care and attention.	3/12	Chronic Sick Ward.	Extension of order at intervals of three months. Still in Chronic Sick Ward at year end.	Relatives—Niece in Liverpool.
House filthy and insanitary. Patient senile and crippled with rheumatism.	3/12	Chronic Sick Ward.	Died.	Husband also bedridden.
Dirty and living in insanitary conditions. Cripple. No light or heat in house. Refused help from anyone.	3/12	Part III	Still in Part III accommodation at year end.	Private income. Relatives—Step-brother.
Living alone in dirty and verminous conditions. Senile. No protection from fire. Refused help in the house.	3/12	Part III	Still in Part III accommodation at year end.	No known relatives.
Dirty personally. Living conditions insanitary. Patient ill. Refused all help at home.	3/12	Chronic Sick Ward.	Still in Chronic Sick Ward at year end.	Heart trouble. No known relatives.
Living alone in dirty and verminous conditions.	3/12	Part III.	Transferred to Chronic Sick Ward. Still in at year end.	
Dirty and verminous condition. Blind (almost). No one to give assistance in the house.	3/12	Chronic Sick Ward.	Died.	No known relatives. Almost blind. Set fire to the house, and sustained burns, between the time of being referred for removal (under Section 47) and the date arranged for removal.
Dirty and verminous condition. Very deaf.	3/12	Part III	Extension of Order 20.12.49. Patient still in Part III accommodation at year end.	No known relatives.
Dirty and verminous. Refused voluntary cleansing. ? Impetigo. Living alone.	3/12	Part III	Transferred to Chronic Sick Ward and visiting Christie Hospital for specialist treatment at year end.	Twice admitted to the Homes for Little Sisters of the Poor, but refused to stay there. Unsafe to live alone. Used candles for lighting. Turned on gas taps unlighted, and seemed unaware she had done so. Window blocked up. No ventilation. No known relatives.
Dirty. Living in insanitary surroundings. Senile. Refuses any help.	3/12	Part III	Extension of Order for further three months. Still in Part III at year end.	No known relatives.
Dirty insanitary conditions. Blind and deaf. Senile. Lost use of legs. Refused all help, including medical aid.	3/12	Chronic Sick Ward.	Died.	No known relatives.
Living in dirty, insanitary and verminous conditions.	3/12	Part III	Extension of Order. Still in Part III accommodation at year end.	Nearest relative ? niece. Old case of hemiplegia (claw hand). Reported to be heavy drinker.
Filthy condition of person, clothing and bedding.	3/12	Part III	Died.	

Verminous Conditions and Scabies.

Persons treated for Verminous Conditions at Monsall Clinic.

Year	Males Adult	Females Adult	School Children	Children under 5	Total
1945	329	751	662	222	1,964
1946	205	532	532	157	1,426
1947	187	299	400	113	999
1948	236	92	259	20	607
1949	229	99	242	24	594

The Department has a scheme for supplying special steel combs at cost price to mothers ; 87 steel combs were distributed, compared with 71 during 1948.

Scabies.

The main source of notification of scabies is the Education Department, but many cases are brought to the notice of health visitors, either as contacts of those notified by the School Health Service or as new cases.

The source and number of notifications received during 1949 and the preceding years was as follows :—

Sources of Notification of Scabies.

	1945	1946	1947	1948	1949
School Health Service	1,670	1,494	986	433	276
Hospitals	672	684	330	42	24
General Practitioners	1,571	1,184	504	265	158
Centre Medical Officers	211	183	100	44	30
Health Visitors	1,842	1,132	375	163	70
Applied voluntarily	1,130	783	295	137	78
Discovered at Monsall	61	13	13	9	3
H.M. Forces	—	—	—	1	—
Salvation Army	—	1	1	4	—
Social Welfare	4	6	9	—	—
Sanitary Section	2	—	—	—	—
Ministry of Labour	—	4	—	—	—
Ministry of Health	4	—	7	2	3
Business Houses	20	17	10	13	2
Day Nurseries	28	15	1	—	—
Total	7,215	5,516	2,631	1,113	644

The number of persons treated at Monsall is shown in the following table :—

Treatment for Scabies.

Year	Males Adult	Females Adult	School Children	Children under 5	Total Persons
1945	1,313	2,951	1,309	1,052	6,625
1946	1,212	1,996	871	740	4,819
1947	523	794	313	359	1,989
1948	257	320	168	154	899
1949	162	186	82	75	505

Scabies is treated by two applications of an emulsion of benzyl benzoate with an interval of from one to four days between the first and second treatments.

The health visitor paid 1,005 visits to homes in which scabies occurred.

Monsall Clinic provides a 12-hour service on Wednesday of each week to suit the convenience of workers unable to attend during the day.

National Society for the Prevention of Cruelty to Children.

The Department is again indebted to this Society for assistance in dealing with certain difficult families. During the year help was sought in 25 cases, compared with 15 in 1948 and 16 in 1947.

Nursing Homes Registration.

(Public Health Act, 1936—Sections 187/194.)

At the end of the year there were 17 registered Nursing Homes in the City, of which 4 were registered for maternity patients, 5 for medical, 3 for maternity, medical, and surgical, 3 for maternity and medical, 1 for surgical, and 1 for medical and surgical.

One maternity home was closed in September, and during the year 3 new nursing homes were registered.

4 applications were received from voluntary hospitals for exemptions under Section 192, and all were granted.

All registered nursing homes were inspected during the year.

Visits by Health Visitors, 1949.

Type or cause of visit	Number
Children, 0-1 years, primary visits	14,142
„ „ „ subsequent visits	31,548
„ 1-2 „	24,353
„ 2-3 „	22,659
„ 3-4 „	15,764
„ 4-5 „	18,939
„ 5-14 „	5,225
„ visits <i>re</i> removal to and from the City	6,428
„ over 5 years, nursed out	13
„ interviews with parent only	9,444
Persons over 14 years	5,243
Aged and infirm persons	680
Stillbirths, primary visits	277
„ subsequent visits	282
Neonatal deaths	179
Mothers, primary visits during pre-natal period	1,380
„ subsequent visits during pre-natal period	173
Unsatisfactory home circumstances	141
Scabies, primary visits	399
„ subsequent visits	221
Verminous conditions, primary visits	777
„ „ subsequent visits	228
Measles, primary visits	5,736
„ subsequent visits	4,761
German measles, primary visits	285
„ „ subsequent visits	117
Whooping cough, primary visits	2,087
„ „ subsequent visits	1,935
Pneumonia, primary visits	883
„ „ subsequent visits	535
Influenza, primary visits	6
„ „ subsequent visits	3
Infantile diarrhoea, investigations	1
Venereal disease, primary visits <i>re</i> "follow up"	63
„ „ subsequent visits <i>re</i> "follow up"	359
Miscellaneous visits	12,829
Visits by student health visitors	7,964
Total	196,059

Day Nurseries.

There are 29 day nurseries in the City, providing accommodation for 1,450 children. The Nurseries are open from 7 a.m. to 6-30 p.m. on Monday to Friday, inclusive. Since September they have been closed on Saturday mornings, as the average attendance on Saturdays was consistently low over a long period. The charge remains at 1s. 6d. per day, which covers the cost of food only.

At the end of the year the names of 1,587 children were on the Nursery Registers. Each nursery takes approximately 10 per cent. of additional children, in an endeavour to maintain a high average attendance without overcrowding. The average attendance for the year was 1,246. The number of admissions was 1,212 and the number of discharges 1,103. In spite of the increased number of admissions, the waiting list at the end of the year was 3,900. Priority of admission is given to those children whose mothers are entirely dependent on their own earnings, and to the children of widowers and others similarly placed. While this priority is very necessary, it makes it very difficult in some districts to offer any hope of admission to children from families where the father is working.

Medical officers from the department visit the nurseries once a fortnight. Every child has a medical examination before admission and at routine intervals throughout its stay in the nursery. A total of 9,282 examinations were made in 1949.

517 children attending the nurseries were known to have had an infectious disease. These were as follows :—

Measles	209
Whooping Cough	128
Scarlet Fever	24
Mumps	28
Diphtheria	1
Poliomyelitis	1
Chicken Pox	20
German Measles	5
Influenza	78
Diarrhoea	21
Scabies	2

49 accidents to children occurred in the nurseries. Of these, 47 were minor accidents, while only 2 were major accidents, both of which involved the fracture of a limb.

There were 87 burglaries during the year, resulting in loss of goods and a great deal of wanton damage.

A classified summary was made in July of the circumstances of parents of day nursery children. Approximately one-third of the children came in the priority classes previously mentioned, while of the remaining two-thirds the vast majority of fathers were working for wages which were said to be inadequate. Over 400 mothers work as machinists, 250 work in mills or with textile machinery. 110 perform clerical duties, 150 are engaged in domestic work, mainly in canteens, works and hospitals, while the remainder are in a variety of occupations such as boxmaker, wireworker, printer, labourer, nurse, school teacher and many others.

The Education Committee provide theoretical training for nursery students at the Southall Street Nursery Training Centre. Nursery students are employed by both the Education and Health Committees, and due to continued co-operation between the two departments a mutual interchange of students has been arranged, thus enabling all students to obtain experience in both day nurseries and nursery schools and classes.

Nine students gained the Diploma of the National Nursery Examination Board during the year.

Fifty-two nursery assistants successfully completed the Senior Child Care Reserve Course, 37 attending the Manchester Courses, while 15 went to the two courses held by the Lancashire County Council. Five nursery assistants passed the Warden's course, one warden attended a refresher course, and 10 nursery matrons benefited by a fortnight's refresher course held in Manchester.

The Maternity and Child Welfare Sub-Committee visited 10 nurseries during the year.

Nurseries and Child Minders Regulation Act, 1948.

Certificates of registration were issued to three factory nurseries during the year. One of these nurseries closed in June, leaving two factory nurseries on the register at the end of year. These two nurseries provide accommodation for 60 children.

The Hulme Day Nursery is the only remaining voluntary day nursery in the Manchester area. Accommodation is provided for 40 children.

Twelve persons were registered as child minders in 1949. During the year 6 of these persons had their names removed from the register at their own request, leaving at the end of the year 6 registered child minders permitted to care for a total of 40 children. Six persons were refused registration by the Health Committee.

Day Minded Children.

A record of children whose mothers go out to work and who are cared for by relatives or neighbours is maintained. These day minders who take only one or two children are exempt from the provisions of the Nurseries and Child Minders Regulation Act.

The average number of day-minded children known to the department was 274, and the number of applications received for day minders was 197.

DENTAL INSPECTION AND TREATMENT OF MOTHERS AND YOUNG CHILDREN.

By A. G. Batten, L.D.S. (R.C.S.), Senior Dental Officer.

In the Annual Report for 1948 an outline was given of the scheme for a priority dental service for mothers and young children to meet the requirements of section 22 of the National Health Service Act, 1946, by an expansion of the Health Committee's facilities and a reciprocal arrangement with the School Health Service as regards use of School Dental Clinics.

The difficulties in implementing the scheme, which were encountered in 1948, have continued during 1949 and were further accentuated by resignations of dental officers and inability to fill vacancies in the establishment. The City Council has also been unable to authorise the erection of the dental clinics required by the Health Committee as part of the scheme.

The services of two part-time dental surgeons continue to be retained by the Health Committee, and treatment for mothers and young children has been given at the Committee's two existing dental clinics. Treatment for expectant and nursing mothers consists of the extraction of teeth only for the relief of pain or sepsis. Similarly, children are treated by extraction for the relief of pain and silver nitrate treatment in an attempt to arrest the progress of dental decay.

Facilities are available, where necessary, for X-ray examination and supply of dentures through the Dental Laboratory of the School Health Service.

Details of treatment completed are shown below.

(a) Numbers Provided with Dental Care.

	Examined	Needing Treatment	Treated	Made dentally fit
Expectant and nursing mothers ..	376	376	376	376
Children under 5	1,919	1,919	1,919	1,919

(b) Forms of Dental Treatment Provided.

	Extractions	Anaesthetics		Fillings	Scalings or Scaling and gum treatment	Silver nitrate treatment	Dressings	Radio-graphs	Dentures provided	
		Local	General						Complete	Partial
Expectant and nursing mothers	1,378	1,378	—	—	—	—	—	—	—	—
					other operations, 15					
Children under 5 ..	473	473	—	—	—	6,183	—	—	—	—

HOME NURSING SERVICE.

The general part of this Service in the City is provided by the Manchester and Salford District Nursing Institution by an agreement between the City Council and the Institution, according to the terms of the Councils' approved proposals under Section 25 of the National Health Service Act of 1946. This agreement was reviewed after twelve months' working of the Service, and was renewed for a further year, from 5th July, 1949, to 4th July, 1950, in view of the satisfactory manner in which the Institution had operated the Service.

The Council themselves employ two special nurses for the care of premature babies, three ophthalmic nurses and one tuberculosis nurse for the home nursing of tuberculosis patients; full details of these latter-mentioned portions of the Service are included elsewhere in this report.

Administration of the entire Service is effected by the Health Committee through its Domiciliary Care Sub-Committee and the Medical Officer of Health is responsible to the Health Committee for the efficient operation of the Service. Liaison between the District Nursing Institution and the Corporation is maintained by a representative of the Institution being a member of the Domiciliary Care Sub-Committee and by contacts between the appropriate professional and administrative officers.

The following information has been provided by Mr. G. Lesson, B.Sc.(Econ.), A.C.I.S., General Secretary of the Manchester and Salford District Nursing Institution on the general portion of the Service which was undertaken by the Institution throughout the year 1949 :—

A. *Nursing Staff.*

During 1949 the average number of district nurses at work was 78, of whom 64 were full-time and 14 part-time, giving an equivalent full-time average strength of 71. This figure is analysed into :—

(a) *Nursing grades—*

Queen's Superintendents	4
Queen's Assistant Superintendents	5
Queen's female nurses	35
Queen's male nurses	7
Queen's student district nurses	10
State-registered nurses	7
State-enrolled assistant nurses	3
	<hr/>
	71
	<hr/>

(b) *Accommodation—*

Resident in large District Nurses' Homes under control of a Superintendent	33
Non-resident, but working from a Nurses' Home under control of a Superintendent	26
Operating on " single " or " double " districts	12
	<hr/>
	71
	<hr/>

(c) *Male nurses—*

All areas of the City are now covered by male Queen's nurses.

At 31st December, 1949, there was an equivalent full-time nursing strength of 70, representing a deficiency on establishment of 7. This deficiency of 7 compares with 15 in 1948.

B. *Training.*

The average figure for the year of 10 students (referred to above) represents 20 State-registered nurses who were accepted for the six months post-graduate training for the Queen's Roll at the Ardwick and Harpurhey Training Homes. Eighteen nurses actually qualified for the Queen's Roll in 1949.

During the year the first of a series of Refresher Courses was held in Manchester for all qualified Queen's nurses on the staff, and one-fifth of all nurses will attend the Course each year. In addition, 4 nurses attended Resident Courses organised by the Queen's Institute of District Nursing.

One Assistant Superintendent was also awarded a scholarship to enable her to take a Health Visitor Certificate course of training.

C. *Transport.*

Although the majority of the nurses still do their twice-daily rounds on bicycles, the Institution is steadily pursuing its aim to provide motor cars for all the larger nursing districts. During the year 2 additional cars were provided, in addition to which 3 cars owned by the nurses themselves were authorised to be used on the "district" and so qualified for a travelling allowance. At 31st December, 1949, 17 cars were in regular use, of which 7 were owned by the nurses. In addition 9 motor cycles were in use.

D. *Sickroom Equipment Loans Scheme.*

The scheme referred to in the previous year's report was continued during 1949. The following articles are available for loan to all patients free :—

*Air beds	Hot water bottles
Air rings	Inhalers
Bed bottles	Kidney bowls
Bed cradles	Rubber sheets
Bed pans	Sputum mugs
Bed rests	Steam kettles
Bed tables	Walking sticks
Commodes	*Water beds
*Crutches	Wheel chairs
Feeding cups	

* A small weekly charge is made for these articles.

The following figures show the volume of loans made during the first 12 months of the scheme, viz., to 4th July, 1949 :—

Total number of articles issued	2,315
Number of articles damaged	30
Number of patients who paid for damage or loss	4
Articles more than two months outstanding on 4th July, 1949 ..	67

Loans under the scheme are made not only to patients on the books of the Queen's nurses—that is, those persons actually receiving nursing care—but also to any applicant who produces a certificate from a doctor or health worker in support. Articles loaned to these latter applicants amounted to practically one-third of all the articles issued. This fact accounted in large measure for the number of loaned articles not returned at the end of the period, which represented 2.9 per cent. of the total. The small proportion of the lost or damaged articles which were reimbursed by patients is accounted for by the poor circumstances of the patients.

E. *Statistics of Nursing Work.*

Section I.

Cases on the books 1st January, 1949	753
Add—New cases during 1949.. .. .	7,189
Total cases nursed	7,942
Deduct cases taken off books during 1949	6,893
Cases on the books 31st December, 1949	1,049

The new cases and the total cases nursed represent an increase respectively of 34 per cent. and 33 per cent on the figures for 1948.

Section II.

Classification of New Cases.	Age Groups				
	0-4	5-14	15-64	65 and over	Total
(a) Notifiable Infections :					
Influenzal pneumonia	1	1	23	8	33
Primary pneumonia	22	18	68	25	133
Broncho-pneumonia.. ..	23	2	40	35	100
Measles	3	4	—	—	7
Whooping cough	1	—	—	—	1
Pulmonary tuberculosis	—	1	29	7	37
Non-pulmonary tuberculosis ..	2	—	15	3	20
Erysipelas	—	—	9	1	10
(b) Non-notifiable infections	—	—	—	—	—
(c) Medical	329	220	1,868	1,583	4,000
(d) Surgical	112	66	864	402	1,444
(e) Gynaecological	—	2	106	77	185
(f) Complications of pregnancy ..	—	—	14	3	17
(g) Complication following childbirth	—	—	25	—	25
(h) Chronics	—	—	202	941	1,143
(i) Operations	21	5	5	3	34
Totals	514	319	3,268	3,088	7,189
Percentages	7%	4.5%	45.5%	43%	100%

Section III.

Sources of reference of new cases :—

General practitioners	6,216
Hospitals	602
Personal applications	293
Industrial Medical Officers or Nurses.. ..	3
Local Health Authorities—	
Maternity and Child Welfare Department	10
Health Visitors	42
Tuberculosis Section	2
School Medical Department	2
Welfare Services Department	7
Miscellaneous	12
Total	7,189

DOMESTIC (HOME) HELP SERVICE.

The total establishment of Home Helps has remained at 60; all the Helps are full-time, female employees holding superannuable appointments.

Revised terms of service were introduced on 11th July, 1949, following the adoption by the City Council of recommendations made by the North Western Whitley Council for non-trading services as regards hours of duty and rates of pay of Home Helps, pending the fixation of National rates. The existing Corporation terms of a 48 hour week and a wage of £4 1s. weekly were superseded by the Whitley Council's terms of a 44 hour week and a payrate of 1s. 10d. per hour with an additional 1d. per hour after twelve months of satisfactory service with the Corporation.

General co-ordination of the Service is effected by the Organizer who, with the use of her own motor car transport financed by the Committee, visits the homes of persons receiving assistance and supervizes the work of the Helps.

Compared with 1949, the use of the Service has increased; this is due mainly to the extension of part-time service, particularly in relation to aged and infirm persons.

During the year, applications for assistance were received from 1,339 households; 942 of these were cases following confinement and the remaining 397 were cases of sickness, old-age or infirmity. Sources of these applications for assistance were as follows:—

Source	No. in cases following confinement	No. in cases of sickness, old-age, etc.	Totals
Personal application (by letter, telephone, or visit to the office by applicant or a representative)	503	237	740
Child welfare centre, health visitor, or midwife	347	39	386
Hospital almoner	86	57	143
Medical practitioner	5	23	28
Tuberculosis Centre	—	21	21
Welfare Services Department	—	15	15
District Nursing Association	—	5	5
Mental Health Service	1	—	1
Totals	942	397	1,339

338 of the applications were cancelled by the persons concerned. 907 cases received attention—569 following confinement and 338 sick and aged; of the latter, 248 were helped on a full-time basis and 90 on a part-time basis. The remaining 94 cases had not been completed by the end of the year. The average time spent by the Helps on cases was three weeks.

The year was commenced with a staff of 49 Home Helps; 34 were recruited and 25 resigned during the year; the average number employed throughout the year was 55.

Contributions towards the cost of the Service are recovered from householders assisted according to authorised scales of assessment which are based on the recommendations of the Association of Municipal Corporations.

The following table shows the distribution of cases assisted in 1949 throughout the various districts of the City and also the numbers of Helps residing in the districts :—

Districts	Type of case assisted				Total	Distribution of Helps at 31st Dec., 1949		
	(a) Following confinement		(b) Sick and aged persons					
Didsbury, Fallowfield, and Withington	103	(100)	53	(28)	156	(128)	7	(5)
Blackley and Moston	75	(85)	27	(11)	102	(96)	3	(2)
Burnage, Levenshulme, and Longsight..	60	(67)	39	(19)	99	(86)	10	(5)
Wythenshawe (Northenden, Benchill, Sharston and Crossacres)	68	(60)	22	(6)	90	(66)	4	(2)
Gorton and Ardwick	35	(17)	40	(6)	75	(23)	9	(8)
Chorlton-cum-Hardy and Whalley Range	42	(49)	22	(13)	64	(62)	4	(3)
Rusholme and Moss Side	30	(43)	28	(10)	58	(53)	7	(8)
Hulme and Chorlton-upon-Medlock ..	27	(33)	22	(5)	49	(38)	4	(7)
Clayton, Bradford, and Openshaw ..	17	(30)	32	(7)	49	(37)	6	(4)
Newton Heath and Miles Platting..	26	(18)	15	(5)	41	(23)	1	(2)
Baguley	33	(41)	5	(—)	38	(41)	1	(3)
Crumpsall	23	(17)	10	(3)	33	(20)	—	(—)
Cheetham	12	(14)	15	(6)	27	(20)	1	(—)
Collyhurst, Harpurhey, and Ancoats..	18	(19)	8	(2)	26	(21)	1	(—)
Totals	569	(593)	338	(121)	907	(714)	58	(49)

NOTE.—Figures in parentheses relate to the previous year, 1948, and are included for purposes of comparison.

CONVALESCENT HOMES SECTION.

The following information relates to adult persons who were referred to convalescent homes by the Health Department. Some children are dealt with in the part of this report in which is described the Dr. Garrett Memorial Home at Conway whilst other children are covered by the provisions of the Education Committee.

In 1949, a total of 147 adults were sent to convalescent homes; an increase of 40 persons over the previous year. 143 were sent to the West Hill Convalescent Home at Southport and 4 to the Lear Home of Recovery at West Kirby.

Both of these establishments are conducted by voluntary organizations.

42 recommendations were cancelled during the year; particulars of these are as follows :—

(a) cancelled by doctor—patient unfit to travel	3
(b) cancelled by the person concerned—unable to wait for a vacancy at a convalescent home	20
(c) did not keep appointment	19
Total	42

LANGHO COLONY FOR EPILEPTICS.

By Dr. G. A. Thompson, Medical Superintendent.

STAFF.

Full-time.

G. A. Thompson, M.R.C.S., L.R.C.P.	.. .. .	Medical Superintendent
Miss S. A. Crawley, S.R.N., S.C.M.	.. .. .	Matron
(Resigned 26.8.49)		
Miss E. J. Smith, S.R.N., R.M.P.A., R.M.N.	.. .. .	Matron
(From 6.9.49)		
H. E. Connolly	.. .. .	Secretary-Steward
(Resigned 13.3.49)		
S. A. C. Bunn, A.H.A., F.C.C.S.	.. .. .	Secretary-Steward
(From 4.4.49)		

On the 31st December, 1949, there were maintained in the Colony 249 male and 280 female colonists, of whom 229 were chargeable to the Manchester Corporation and 300 to other Authorities as under :—

<i>County Boroughs.</i>	<i>County Councils.</i>
Barrow-in-Furness 1	Cheshire 10
Blackburn 22	East Suffolk 5
Blackpool 9	Glamorgan 3
Bolton 7	Lancashire 135
Bootle 2	Middlesex 4
Bradford 2	Monmouth 1
Burnley 10	North Riding 1
Birmingham 5	Surrey 7
Croydon 1	West Riding 12
Ipswich 3	Worcester 1
Lincoln 2	
Liverpool 16	179
Leeds 2	
Oldham 2	
Preston 5	
Salford 24	
Stockport 2	
Warrington 4	
Birkenhead 1	

Others.

Secretary, National Hospital,
Queens Square, London 1

Total : 300

120

The total number of seizures during the year was 28,971.

	Severe	Slight	Total	Average	Number Maintained
Male	9,570	4,955	14,525	57	255
Female	8,384	6,062	14,446	55	270
Total	17,954	11,017	28,971	112	525

Out of the above totals, three male colonists together accounted for 731 severe and 420 slight seizures.

The classification of the incidence of seizures during the year is as follows :—

	Males	Females
Status Epilepticus	—	—
Decreased incidence	51	10
Increased incidence	63	33
No change	118	196
No seizures during the year	27	30
Unclassified (including recent admissions and non-epileptics)	29	—

There were :—

	Males	Females
Admissions	44	40
Re-admissions	12	3
Discharges	49	25
Deaths	7	7
Treatments at other hospitals and clinics for :—		
Fractures	16	22
Orthopaedic	5	4
Surgical	10	13
E.N.T... .. .	—	5
Skin... .. .	3	4
X-rays... .. .	7	—

The employment of colonists on 31st December, 1949, was as follows :—

	Males	Females
Domestic—the Homes, etc.	100	108
Domestic—Administrative Block	7	18
Laundry	3	20
General Kitchen	—	4
Sewing Room	—	20
Coal Yard	5	—
Engineer's Department	3	—
Carpentry, etc.	5	—
Shoemaking	2	—
Tailoring	1	—
Office and Stores	6	—
Farm	18	—
Kitchen Garden	7	—
Grounds, Sports Field, etc.	47	—
Medical Superintendent's Garden	3	—
Light Work	23	—
Sick and unemployable	19	100

Other Matters.

Miss S. A. Crawley resigned her post as Matron here on 26th August, 1949, having been appointed Matron at Scarsdale Hospital, Chesterfield. Miss E. J. Smith, the Matron of Middlefield Hall, Knowle (Ancillary of Monyhull Colony), Birmingham, was appointed in her stead, taking up duties on 6th September, 1949. Miss S. A. Collinson, Assistant Matron, retired on pension in April, 1949, and up to date in spite of intensive advertising of the vacancy we have been unable to appoint a successor to the post.

I am pleased to report that on the male side of the Colony there are no staffing difficulties, in the main due, I think, to increased salary awards. Unfortunately, the same does not hold good on the female side, and along with other local institutions we are suffering from an acute shortage of female staff.

A number of large-scale structural alterations have got under way during the year, and one or more homes have had to be closed owing to these alterations, with some resultant degree of overcrowding.

The general health of the colonists is very good, and they take a great interest in all social functions that are organised for their benefit. Very few of the colonists are confined to bed, and most of them are occupied with various colony duties.

A start has also been made towards setting up an Occupational Therapy department, and one of the male attendants who is interested in this type of work has been seconded to Calderstones Hospital for training. We have done this because it is virtually impossible to obtain the services of a fully qualified Occupational Therapist.

A successful Sports Day was held in August for the benefit of the colonists, and we had pleasure in welcoming members of the Residential Homes Sub-Committee and Corporation Officials. The usual races, side shows, etc., were enjoyed in ideal conditions, and the chairman, Mr. Bowes, kindly presented the prizes to the numerous winners.

During the winter months film shows, whist drives and dances have been greatly appreciated by the colonists, as well as concerts given by the Benchill Community Centre, Wythenshawe, and other local bodies.

Under the Will of the mother of one of our colonists, we were left a sum of money which enabled us to purchase a gramophone and amplifying equipment for use in the assembly hall, and this has greatly helped towards the enjoyment of the various functions, etc.

Football or cricket matches were organised almost every Saturday during the year, and a number of the colonists have showed surprising ability in this direction. We are hoping to enter the local cricket and football leagues next year. The purchase of a motor mower has enabled us to keep the sports field in excellent condition, and a net-ball pitch has been laid out for the use of the female colonists.

During the year we had visits from the Board of Control, Welfare Authorities, and Lady Alethea Eliot, Extension Commissioner for England, and Mrs. Duncan, Extension Commissioner Girl Guides, I.H.Q., and a Member of Parliament for this division. They all expressed pleasure and satisfaction with what they saw.

A full Christmas programme was thoroughly enjoyed by all the colonists. A Tea Dance and a Carnival Fancy Dress Dance were held, the standard of the fancy dresses being extremely high.

DR. GARRETT MEMORIAL HOME.

By H. Fisher, Secretary-Steward.

STAFF.

Full time—

H. Fisher..	..	..	..	..	..	Secretary-Steward.
Florence E. Ray,	S.R.N.,	S.C.M.	..	..	..	Matron.

On the 1st January, 1949, 85 children were in residence.

The total number of admissions during the year was 338, a decrease of 23 as compared with the previous year.

Discharges numbered 367, an increase of 7 as compared with the previous year.

The number remaining on the 31st December, 1949, was 56, a decrease of 29, as compared with the same date in 1948.

The following is a summary of the diagnosis prior to admission:—

Debility	133
Anaemia	28
Diseases of the respiratory system	75
Chorea	4
Rheumatic and cardiac disease	13
Post-appendectomy	3
Malnutrition	3
Nervous debility	16
Post-pneumonic debility	11
Habit spasm	3
Post -Scarlet Fever	14
Post-Whooping Cough	2
Diphtheria	1
Miscellaneous	32
	<hr/>
	338

Of the 367 children discharged, 336 were marked "fit," 13 "improved" and 18 required further hospital treatment. 358 gained weight, 8 remained stationary, and 1 lost weight.

During residence, 368 children received nursing treatment for the following:—

Asthma	1	Jaundice	4
Bruises, cuts, sprains, etc. ..	41	Nausea, etc.	11
Chickenpox	1	Nocturnal Enuresis	13
Chorea	2	Pleurisy	1
Conjunctivitis	4	Pneumonia	1
Coughs, colds, sore throats, etc.	56	Pyrexia, etc.	25
Diphtheria	1	Scabies	1
Earache, etc.	12	Scarlet Fever.. .. .	14
Eczema	3	Skin eruptions	71
Herpes	7	Threadworms.. .. .	9
Impetigo	1	Tonsillitis	54
Influenza	14	Miscellaneous	21

The recruitment of trained nursing and other staff was again very poor, and it has not been possible to maintain the full number of children.

The swings, slide, and jungle gym erected on the playing fields are much appreciated.

The talkie projector has been a great asset in entertaining the children during the winter months.

AMBULANCE AND TRANSPORT SERVICE.

By G. Marron, A.M.I.Mech.E., M.I.E.I., F.I.M.I., Manager, Manchester
Ambulance Service.

To meet the needs of the National Health Service Act, 1946, for the provision of an Ambulance Service "for the conveyance of persons suffering from illness or mental defectiveness or expectant or nursing mothers from places in the City to places in or outside the City," it was necessary to arrange for the unification of the four Ambulance Services which previously operated within the City.

This co-ordinated fleet now consists of 47 ambulances, four "shooting brake" type vehicles and two "sitting case" saloon cars, the disposition of which is as follows:—

Belle Vue Street (Main Garage) ..	26 ambulances
	2 saloon cars (sitting cases)
Monsall.. .. .	6 ambulances
Chorlton	5 ambulances
	3 shooting brakes
Withington	4 ambulances
Crumpsall	2 ambulances
	1 shooting brake
Goulden Street	4 ambulances

The Headquarters of the Service are at the Main Garage, Belle Vue Street, and as speed and efficiency are essential to an Ambulance Service of this size and character, all the Sub-Depots are connected to the Main Garage by direct telephone lines. All requests for ambulances, etc., including "999" emergency calls, are received at the Main Garage, and such calls are then redirected to the Sub-Depots concerned.

To assist in this distribution of work, a special indicator has been installed in the control room at the Main Garage, which, by means of rotary switches and indicator lamps, shows at a glance the number of vehicles from the Main Garage and each Sub-Depot on service and the actual numbers available for duty.

Prior to unification taking place, the separate Ambulance Services, i.e., Health, Social Welfare, Police and E.M.S., were operating approximately 429,000 miles per year. During 1949 the new Ambulance Service operated 815,142 miles, the detailed operational record of the Service from 3rd January to 31st December, 1949, being as follows:—

	No. of calls	Patients removed	Mileage
January ..	5,466	7,380	58,032
February ..	5,855	7,779	60,405
March	7,069	9,244	76,734 (5 weeks)
April	5,453	7,157	57,929
May	5,656	7,460	59,171
June	7,149	9,460	77,467 (5 weeks)
July	6,051	8,164	64,675
August	5,998	8,050	62,207
September ..	7,760	10,821	79,661 (5 weeks)
October ..	6,625	9,214	68,541
November ..	6,748	9,136	70,893
December ..	8,058	10,861	79,427 (5 weeks)
	77,888	104,726	815,142

Of this total, 4,871 patients not normally resident in Manchester were conveyed over distances totalling 152,247 miles, which is 18 per cent. of the total mileage operated by the ambulances ; 235 journeys, conveying 262 patients, were made of over 100 miles return.

The major maintenance and repairs are undertaken at the Main Garage, but owing to the workshop at Headquarters being too small and working space so cramped that the mechanics are compelled at certain times to use space in the garage, consideration is being given to an extension of the Main Garage to meet this need.

The workshop at Monsall Depot undertakes minor repairs and carries out the maintenance of the cars used by Sanitary Inspectors.

Distribution of Ambulance Calls.

During 1949 some 77,888 requests for ambulance transport were received and the following indicates the nature of the calls :—

Accidents	6,505
General	67,692
Infectious	3,691

The increased demand for ambulances is still being maintained, and the present resources of the Service are being constantly overtaxed. Requests have been made to Hospital Authorities and general practitioners, etc., to reduce calls to a minimum, and to ensure that ambulances should only be ordered for patients where there is a genuine need.

Removal of Infectious Cases.

1,810 cases of infectious disease, other than tuberculosis, were removed to Monsall Hospital, and 88 cases removed to outside hospitals, chiefly Ladywell. 328 patients were discharged to home addresses and other institutions, a total of 2,226 cases being removed. In addition there were 336 tuberculosis patients removed to sanatoria.

Transport of Out-Patients.

The proposal to purchase two spurmobuses during the year for the transport of out-patients to meet the need of some of these patients who are handicapped by plaster casts, splints, etc., will certainly be an asset to the Service. One of these vehicles, after modification in the department's workshop, was put into service on the 1st September, 1949, operating from Crumpsall Depot. One driver without attendant is all that is necessary to operate this vehicle ; it is used on regular day duties for sitting cases only and has proved extremely satisfactory for the purpose.

Municipal Car Pool.

In addition to the Ambulance Service vehicles, the Municipal Car Pool, consisting of nine saloon cars, is also operated from the Main Garage at Belle Vue Street. These cars are utilised for the transport of mental cases, hospital sitting cases, and for Committees and officials of the various Corporation departments. The mileage operated in this section during 1949 was 209,039 miles.

Hospital Car Service.

The Hospital Car Service, which is administered by the local branch office of the Women's Voluntary Services on behalf of the Manchester Ambulance Service, has continued to augment the Ambulance Service, mainly for the transfer of sitting cases to and from hospitals within the City for out-patient treatment, and in-patients on discharge from hospitals within the City to their homes.

During 1949 an average of 24 drivers were utilised. These 24 drivers made 6,117 journeys and moved 12,010 patients a distance of 122,404 miles, and the following table shows how this branch of the Service has expanded during the year, although the number of drivers available has shown a reduction over the same period.

	Number of Drivers	Number of Journeys	Number of Patients	Total Mileage
January.. .. .	27	413	811	6,793
February	26	372	774	5,830
March	25	455	958	7,526
April	26	417	816	8,033
May	28	519	1,005	10,636
June	24	469	912	8,527
July	22	492	972	10,854
August	23	497	960	10,630
September	25	546	1,057	11,352
October	23	613	1,196	13,911
November	20	688	1,345	14,410
December	20	636	1,204	13,902
Totals		6,117	12,010	122,404

Commercial Vehicles.

Commercial vehicles, consisting of five lorries and one van, are employed. These are used also by other departments of the Corporation, and the mileage operated was 58,031 miles.

Three bedding vans are operated from Monsall sub-station and are utilised for the collection and return of infectious bedding and clothing, and during the year under review operated 18,520 miles.

Mobile Immunization Unit.

This vehicle, which is of a converted motor omnibus type, operates every week-day, touring various parts of the City, and provides facilities for immunization against diphtheria. This vehicle is garaged, maintained and serviced at Monsall Sub-Depot.

The staff of this unit consists of a doctor, nurse, recording clerk and a driver, and works on an appointment basis with the parents in the various areas of the City.

Operating Mileage.

Ambulance fleet	815,142
Municipal Car Pool	209,039
Commercial vehicles	58,031
Bedding vans	18,520
Immunisation Unit	8,603
Total	<u>1,109,335 miles</u>

Disinfection Service.

After the removal to hospital of patients suffering from infectious disease, a Disinfection Service is provided at Monsall Sub-Depot for the disinfection of the clothing and bedding. The bedding vans are employed on the collection and return of these articles, which during 1949 transported for disinfection 27,245 articles and 1,142 library books. In addition, commercial firms also utilised the disinfectors, and during the year 3,500 bundles of second-hand clothing and 1,115 bales of cotton waste were fumigated for export.

Cleansing Clinic.

A Cleansing Clinic is also provided at Monsall and deals with the following types of personal cleansing :—

- (a) the treatment of scabies in adults and children ;
- (b) the disinfestation of persons before removal to Corporation houses ; and
- (c) the cleansing of verminous persons, both voluntary and compulsory.

The following table shows the number of treatments in their various classifications :—

	Scabies	Voluntary cleansing	Compulsory cleansing	Disin- festations	Total
January	103	36	15	17	171
February	83	26	—	8	117
March	63	33	3	13	117
April	90	24	—	8	122
May	81	19	23	2	125
June	76	23	29	—	128
July	37	21	23	11	92
August	96	50	—	13	159
September	45	31	32	—	108
October	87	40	34	19	180
November	48	51	43	8	150
December	46	26	15	3	90
Totals	860	380	217	102	1,559

MENTAL HEALTH SERVICE.

By **L. R. L. Edwards, M.B., B.S., D.P.H.,**
Senior Assistant Medical Officer of Health.

STAFF.

Peggy S. Foxcroft, B.A., MENT. HEALTH CERT... .. Psychiatric Social Worker.
 T. G. Eaton Senior Duly Authorised Officer.

(A) General.

From July 5th, 1948, the Mental Health Service has been administered by the Health Committee of the local authority, and the report gives details of its work during the first year.

A survey of the incidence of mental deficiency in Manchester is now complete, and the figures have been revised from an estimated incidence of 8 per 1,000 to a recorded incidence of 3.56 per 1,000 of the population. Of these 1.33 per 1,000 are in mental deficiency institutions ; 1.60 per 1,000 are under statutory supervision ; 0.61 per 1,000 are under voluntary supervision and 0.01 per 1,000 are under guardianship.

A comparable estimate of mental illness gives an incidence of 3.6 per 1,000 of the population. This estimate is based on total hospital admissions of voluntary, temporary and certified patients during the period under review and takes into account a small number on the waiting list for admission to hospital on the 31st December, 1949.

Admissions to mental hospitals and institutions for mental defectives are still limited to the most urgent cases. The mental Health Service completes a preliminary medical report and assesses the degree of priority for each case on the waiting list of the Bed Bureau for Mental Deficiency Institutions and the Hospital Board allocates beds for urgent cases throughout the region.

During the year three more Mental Health Visitors were appointed within the approved establishment, one of whom, in addition, gave part-time assistance to the Psychiatric Social Worker. The Occupation Centre staff has increased and complies with the Ministry of Health's recommendation of one worker to 10 children. Further appointments will be made in 1950 to provide staff for a third Occupation Centre. The Committee have leased suitable premises for adaption as a Centre in the Ancoats Ward of the City. The Centre will provide accommodation for another 30 children, and when places have been redistributed between the three Centres it is hoped to reduce considerably the present waiting list. Further help in this direction will be given by the alteration and redecoration of the main Centre at Victoria Park ; this work at present is near completion and it is hoped that early in 1950 the Committee will have an opportunity of inspecting the Centre.

The Centres have been visited, at the invitation of the Health Committee, by Committees of neighbouring authorities who are also interested in the provision of Occupation Centres for mentally defective children in their areas.

The Mental Health Service has taken over the after-care of mental cases, including those formerly supervised by the Manchester workers of the National Association for Mental Health, and is now responsible for the after-care of persons discharged on licence from institutions for mental defectives or recommended to the authority for friendly supervision ; in addition, if after-care to follow up their treatment is requested by persons discharged from mental hospitals, the Service arranges for supervision by fully qualified Psychiatric Social Workers and for out-patient treatment.

The Service has received valuable advice from Professor Anderson, Professor of Psychiatry to the University of Manchester, and has established friendly relations through the Regional Hospital Board with Hospital Management Committees and Specialists, and with the medical practitioners of the City.

(B) Administration.

(i) *Medical Supervision.*

The medical supervision, direction and administration of the Service is the responsibility of the Medical Officer of Health, through the Senior Assistant Medical Officer on his staff.

(ii) *Staff.*

There is a total staff of 19.

The service employs five Mental Health Visitors for the supervision of mental defectives, three Duly Authorised Officers and one Psychiatric Social Worker for duties of care and after-care of mentally ill persons. A clerical staff is under the direction of an administrative officer, who also assists in general administration of the Service.

The Psychiatric Social Worker holds the Mental Health Certificate of the London School of Economics and had previously held an appointment as social worker at a Child Guidance Clinic. The Duly Authorised Officers were formerly relieving officers employed by the Authority whole time on duties under the Lunacy and Mental Treatment Acts. They are therefore continuing work of which they have had many years' experience and, in addition, assist the Psychiatric Social Worker in after-care.

The Occupation Centre staff of two Supervisors and four Assistants are qualified by previous experience. The Supervisors hold the Certificate for Experienced Workers awarded by the National Association for Mental Health.

(iii) *Mental Health Sub-Committee.*

The Committee is composed of 13 members of the Health Committee and one member co-opted by the Manchester and Salford District Nursing Institution.

Informatory statutory and statistical reports are presented by the Medical Officer of Health to meetings of the Committee, which take place on the first Tuesday in each month.

(iv) *Co-ordination and Joint Usage.*

(1) *General.*

Mental Health Visitors supervise mental defectives on trial or licence from institutions; the Psychiatric Social Worker completes on request and on behalf of the Medical Officers of mental hospitals, home circumstance reports. These are needed to assist in the treatment of patients admitted to hospital and the social worker of the area is in a better position to obtain this information. In addition, this worker is following up on behalf of certain hospitals the results of specialised treatment for mental illness.

(2) *Reports.***Licence, Progress and Re-certification (Mental Health Visitors).**

	Licence Reports	Progress Reports	Re-certification Reports	Total
Males under 16	8	4	22	34
Males over 16	113	93	71	277
Females under 16	1	5	12	18
Females over 16.. .. .	64	77	58	199
Total	186	179	163	528

(3) *Defectives on Trial or Licence.*

At the request of Medical Superintendents, Mental Health Visitors explore avenues of possible employment for defectives who are sufficiently stabilised to perform suitable work under supervision. They attend interviews between employers and defectives.

Defectives are able to carry out certain tasks provided that there are adequate safeguards ; are paid full rates according to the work that is performed, and gradually become wholly or partially self-supporting. They can become reasonably expert at repetitive work and may find employment as maids and cleaners in hospitals.

Visitors maintain contact with employers and defectives and instruct the defectives in the provident use of their earnings ; thrift is encouraged, and the defectives are helped to open Post Office saving accounts and to make provision for clothing, annual holidays and other necessities.

Visitors arrange holidays for the defectives at recognised and suitable hostels at seaside and holiday resorts. The persons in charge of these hostels are known to the Visitors as suitable persons to supervise defectives, the accommodation is known to be adequate, and the permission of the Medical Superintendent of the Institution is obtained.

Visitors also meet and accompany defectives when they come from institutions to take up residential employment or to return on licence to their homes.

(4) *Re-certification of Defectives.*

The Service completes through its health visitors reports on home circumstances and the degree of control available. These reports are forwarded to the institution for the information of the Statutory Visitors and the Medical Officer when they are considering the re-certification of defectives.

The Committee provide accommodation for the visiting Medical Officer and Statutory Visitors for the purpose of re-certification of persons on licence from the institution. These examinations take place at the Victoria Park Occupation Centre.

(5) *Admissions to Institutions and Hospitals.*

(a) By Petition. (Section 6, Mental Deficiency Act, 1913.)

The Service completes a preliminary medical report and indicates on this the degree of priority according to a code agreed between the Regional Bed Bureau and the Service. If the Bureau are able to find a place in an institution in this Region, the petition can then be presented so that the defective may be admitted within the period of time required by law. The Board have prepared a standard case report which is completed by the Service before petitions are heard.

In 1949 the number of cases admitted by Petition was 25.

(b) By Court Order. (Section 8, Mental Deficiency Act, 1913.)

When a defective is appearing on charge in court and may be committed under Order by the court to an institution for mental defectives, the Service makes preliminary enquiries for a vacancy to the Medical Superintendents of the institutions in the Region. If the Order is made, the defective then proceeds directly to the institution.

In 1949 the number of cases admitted by Court Order was 3.

(c) Mentally ill persons. (Lunacy and Mental Treatment Acts, 1890-1930.)

Duly Authorised Officers are instructed that whenever possible a medical opinion should be obtained. Difficulties arise especially with cases of senile dementia. Medical attendants have great difficulties in obtaining admission for this type of mental illness, and Duly Authorised Officers cannot make arrangements for certification unless they know the place and date of admission as such Orders will lapse. A waiting list is maintained and the officers keep in constant touch with such cases and make daily enquiries to the mental hospitals to obtain admission of their cases.

In 1949 the number of cases admitted to mental hospitals was 732 (including transfers from observation wards).

(6) *Voluntary Associations.*

The Service delegates no duties to voluntary associations, but co-operates in dealing with problem cases with such bodies as the British Red Cross Society, Family Service Units, N.S.P.C.C., City League of Help and the National Association for Mental Health.

(7) *Training of Mental Health Workers.*

Supervisors of Occupation Centres hold a Certificate of Experienced Workers, a qualification awarded this year and recognised by the National Association for Mental Health. They train staff recruited as Assistants to the Centres.

During the year all the members of the Service attended for a week a refresher course held at Calderstones Institution, Whalley, near Blackburn, at which the medical staff gave lectures and demonstrations.

B.A. (Social Admin.) students of the University attend each term to receive lectures from the staff, and to accompany the Visitors to cases on their districts. A few of these students are taking at a later date a course at the University to obtain a qualification recognised by the Society of Psychiatric Social Workers.

(C) Account of Work Undertaken in the Community.**(1) Prevention, Care and After-Care.****Section 28, National Health Service Act, 1946.**

	Psychiatric Social Worker	Duly Authorised Officers	Total
After care	547	35	582
Social histories	150	—	150
Other visits	149	363	512
Total	846	398	1,244

Social histories are completed at their homes by the Visitor after the admission of the patient to a mental hospital, and assist the hospitals in the treatment of each case.

Other visits are made chiefly to investigate, and so are largely undertaken by the Duly Authorised Officers. As a result of investigation, cases are either referred to the Psychiatric Social Worker or to other agencies or are admitted to mental hospitals for observation.

Lunacy and Mental Treatment Acts, 1890–1930.

	Male	Female	Total
Admissions to Mental Hospitals	243	246	489
Admissions to Mental Hospitals for observation ..	127	116	243
Total	370	362	732

In the above table, figures relating to admissions to mental hospitals may include patients transferred from the observation wards.

In subsequent reports it will be possible to give more details of these other visits in view of the extension of this work and from the statistical data that will be available ; in particular, a fuller account will be given of the activities of the Psychiatric Worker.

This officer reports that an increasing number of cases are referred to her at an early stage of mental illness. She is able to arrange out-patient treatment for them and avoid their admission into hospital beds.

Investigation reveals a large number of cases that are really problems of old age. In some there are eccentricities of conduct ; in others there is need of residential accommodation owing to the conditions under which the aged are living and the absence of any means of care. They are not certifiable, and in the present state of knowledge there seems to be no treatment for their eccentricities. Advice and guidance to the family is given by the Worker, but they remain for her difficult problems of care.

The after-care scheme for patients discharged from mental hospitals has met with a good response. A preliminary enquiry is made by the Service when notification is received that a patient has been discharged from hospital. If a request for after-care is received from patient or relatives, the Worker visits the home and interviews the patient. She advises the patient and relatives on how to avoid circumstances that might precipitate another illness and discusses with them personal problems and employment. She acts as a link between patient and employer, and in cases of more permanent handicap discusses with the Disablement Rehabilitation Officer the problem of obtaining more suitable employment.

The after-care of many patients is a long and tedious process demanding a great deal of tact and sympathy and calling for the best type of Worker.

The number of cases on the after-care register varies from 80 to 100.

(2) Work of Duly Authorised Officers.

During the year the Regional Hospital Board revised the list of hospitals to which Manchester patients are admitted and also issued through the hospitals a standard admission form.

The duly Authorised Officers are on call day and night to deal with cases reported to them under the Lunacy and Mental Treatment Acts.

These cases fall into one of the following categories :—

1. Voluntary.
2. Certified, including Petition.
3. Temporary.
4. Observation.

Voluntary. (Section 1, *Mental Treatment Act*, 1930).

Nowadays the majority of mentally ill persons are admitted to mental hospitals at an early stage of their illness and at their own request as voluntary patients. On some occasions the Authorised Officers are asked for advice and transport is provided when needed.

Certified. (Section 16, *Lunacy Act*, 1890).

In these patients the mental state is such that willingness for treatment cannot be expressed. A magistrate having jurisdiction in the area sees the patient in the presence of the Duly Authorised Officer and examines the patient and the certificate of the medical attendant ; if satisfied, the magistrate completes a summary reception order. The hospital to which the patient is to be admitted must be stated on the order, and consequently the officer must have a guarantee of admission before he can take steps to certify the patient.

A number of certified patients are admitted on the petition of their relatives. In these cases two medical certificates are required, and the magistrate signing the order must be a judicial authority, but his jurisdiction is not limited to the area in which the patient lives.

Temporary. (Section 5, *Mental Treatment Act*, 1930).

These patients are admitted without certification, their mental condition is usually less serious, and they are often cases transferred from general hospitals to which they may later return for completion of treatment.

Observation. (Sections 20 and 21, Lunacy Act, 1890.)

These cases are the ones that fall mainly to the lot of the Duly Authorised Officers. They decide whether to admit on 3 or 14 day orders; these periods cover the time required for observation, which can be extended a further 14 days by the Medical Officer of the hospital.

These admissions made under Section 20 and 21 of the Lunacy Act are to special accommodation set aside from mental hospitals, and the period of observation may extend up to a month.

Subsequently these patients may be certified on a summary reception order (the medical certificate must be completed by a doctor from outside the hospital) and they are then transferred for treatment to a mental hospital.

In other cases they return home and often provide difficult problems of after-care.

The duties of the Authorised* Officers are concerned mainly with the admissions of Certified and Temporary cases and with those of mentally ill persons who need to be kept under observation. They work in close association with the doctors and medical officers of the hospitals of the City and co-operate with the authorised officers of other authorities in the duties of admission and transfer of patients.

	<i>Males</i>	<i>Females</i>	<i>Total</i>
Patients dealt with on behalf of other authorities (Certified Cases)	22	9	31

While their responsibility is limited to the removal of cases, they are often invited to express opinions on certifiability and are instructed that whenever possible medical opinions should be obtained.

The names of patients who cannot immediately be admitted to hospital are placed on a visiting list, and they are visited daily by an officer until accommodation can be found.

Admissions and Discharges (Mental Hospitals).

	Admissions to Mental Hospitals				Total admissions	Discharges from Mental Hospitals
	Voluntary	Temporary	Certified	Observation		
Males ..	129	—	114	127	370	264
Females..	109	2	135	116	362	259
Total ..	238	2	249	243	732	523

Patients admitted for observation or on a voluntary basis may subsequently be transferred to the Certified category; these transfers are included in the above table.

(3) Work of Mental Health Visitors.

The Service employs these visitors entirely on mental deficiency work, and each is responsible for the care and supervision of all defectives in her district. She visits the houses of all cases notified to the Service and completes a case report, which enables the Service to ascertain and decide whether the defective is "subject to be dealt with" under the Mental Deficiency Acts.

New Cases ascertained during 1949.

	Education Act, 1944		Other Sources		Total
	Section 57 (3)	Section 57 (5)	Subject to be dealt with	Not at present subject to be dealt with	
Males	27	10	6	4	47
Females... ..	33	6	5	10	54
Total ..	60	16	11	14	101

Defectives ascertained as “ subject to be dealt with ” may remain at home under statutory supervision and are encouraged to attend occupation centres or may need to be placed in institutions or under guardianship.

Disposal of Cases.

	Institution	Home		Place of Safety	Notifi- cation cancelled	Action not yet taken	Total
		Guardian- ship	Statutory Supervision				
Males ..	5	—	33	—	1	4	43
Females..	5	—	29	—	—	8	42
Total ..	10	—	62	—	1	12	85

The remaining 16 cases were found not to be “ subject to be dealt with ” and were placed under voluntary supervision ; others later were found not to be defective.

The Visitors' case load increases year by year as more persons are placed on statutory supervision, and is only lightened when cases die, remove from the area, are admitted to institutions, or are removed by the Medical Officer of Health from statutory supervision.

During the 1949 survey of mental deficiency, many persons were seen who had not been visited for some time. This was due to the difficulties of lack of staff during the war years. As a result of investigation, the Medical Officer of Health considered that they were fully capable of managing themselves and their affairs, and they were removed from statutory supervision by resolution of the Committee.

Other cases were removed from the register as “ lost sight of ” only after extensive enquiries through the National Registration Office, former employers, other Corporation departments and social agencies had failed to elicit further information.

Cases Ceasing to be Under Care.

	Removed from Statutory Supervision	Removed from Voluntary Supervision	Escaped from Institution. Discharge by law	Died	Trans- ferred from Area	Lost sight of	Removed for various reasons	
Males ..	269	21	1	50	7	325	6	685
Females..	143	27	1	29	8	261	5	468
Total ..	412	48	2	79	15	586	11	1,153

Though no cases were placed under guardianship during the year, the Service has continued the supervision of six adult defectives under existing guardianship orders, but financial responsibility for these cases has been accepted by the National Assistance Board.

The total number of mental defectives for whom the Mental Health Sub-Committee is responsible is shown in the table below :—

	Institu- tions (includes cases on licence)	Guardian- ship	Place of safety	Statutory supervision (excludes cases on licence)	Action not taken	Total
Males under 16 ..	53	—	—	157	4	214
Males over 16.. ..	446	2	—	425	—	873
Females under 16 ..	31	—	—	134	8	173
Females over 16 ..	398	4	—	396	—	798
Total	928	6	—	1,112	12	2,058

Occupation Centres. (Section 30 (cc), Mental Deficiency Act, 1913.)

The training of mentally defective children notified to the Mental Deficiency Authority is limited to those children shown in the table above as under statutory supervision. Two centres at present provide accommodation for 85 children, and the attendance at these centres is maintained at over 75 per cent.

Attendance.

The children are distributed between the two centres as shown below :—

	Victoria Park	Wythenshawe	Total
Males under 16	27	9	36
Males over 16	8	4	12
Females under 16	17	11	28
Females over 16	6	3	9
Total	58	27	85

There is provision for a certain number of adult defectives whose mental age is low, and they are often of assistance in the centres.

Attendance at these centres is not compulsory, but there has been a steady increase during the year. Attendance at the Wythenshawe Centre has doubled, but has been restricted at the Victoria Park Centre by the building repairs and structural alterations that have been found necessary.

There is at present a waiting list of 65 children.

Training.

Children at these centres are grouped in classes similar to those in ordinary schools and are taught hand work and physical training. Their activities also include habit training, sense training, speech training, music and movement, domestic tasks and table manners. The older boys and girls receive training in washing crockery, cleaning cutlery and general domestic duties.

The equipment for instruction in hand work is as follows :—

Kindergarten.

Montessori frames.
Coloured sticks for counting and colour.
Wooden bead threading.
Building with bricks of various kinds.
Wooden sewing frames.
Plasticine.
Sense-training games.
Puzzle making.
Percussion band instruments.

Junior and Senior.

Sea-grass stool weaving.
Rug making.
Bead mats.
Knitting.
Sewing.
Embroidery.
Plastic work.
Puzzles.
Barbola work.
Soft toy making.
Percussion band instruments.

Articles made by the children during their training may be retained by them and may be bought for cost of materials by parents and staff. Open days are held, when the pupils' work is displayed.

Rest and Recreation.

The younger children at both centres relax for an hour each day on stretcher beds, and, in suitable weather, pupils from the Wythenshawe Centre are taken in groups to Wythenshawe Park for periods of play and nature study. There is also provision for recreation at Victoria Park.

Christmas parties are held and the children take part in singing, folk dancing, action songs and percussion band displays.

Co-operation of Parents.

Children attending these centres are unable to travel alone. Whenever possible they are accompanied by their parents ; at other times the Supervisory Staff assist in the guiding of pupils to and from the centre on public transport. The children are brought by their parents to specified points along the routes and are met by supervisors and guides to be picked up and set down in the morning and evening.

Parents are eager to send their children to these centres, which are conveniently sited in the City for public transport.

There is a high degree of co-operation between parents and staff.

Holidays.

During May, 1949, 26 children from deserving families were taken for a week's holiday to Bod Donwen Holiday Home, Rhyl. These arrangements were made through the National Association for Mental Health, and an annual seaside holiday is to be a permanent feature.

Children at the centres take their holidays at corresponding times to normal school holidays and have the same facilities for milk and school meals.

Progress Reports and Results.

The Supervisor completes a Progress Report for each child at the end of the term, and these are reviewed by the medical officer. Children are grouped in classes according to their mental ages, abilities and attainments. Most of the children are under normal school leaving age, and if progress is sufficiently advanced they are referred to the School Medical Service for re-examination. If this examination is satisfactory the medical officer may decide to cancel the notification of ineducability and they may be given a further trial in a special school for educationally retarded children.

Other children continue to progress at the centre, and the training often helps them to become at least partially self-supporting, and in all cases helps them later to become useful citizens, and to take a place in society to which they are entitled.

Whilst many of the pupils display an inferiority complex and emotional tendencies, there are many indications of improved self-confidence resulting from the bright and happy environment encouraged at the centres.

The most sustained progress has been observed in handwork and physical and musical activities, and the great improvement in the mental condition of these handicapped children has been readily acknowledged by those parents who have been able to send their children to the centres.

FAMILY WELFARE CENTRES.

The first Family Welfare Centre was commenced as a voluntary effort in February, 1948, with the object of (1) dealing with adolescent problems and difficulties ; (2) strengthening the ideas of the responsibilities of the home by seeking to prevent the break-up of marriage and the alienation of children from their parents ; (3) promoting the adjustment of unhappy childless marriages.

In May, 1948, as a result of Council approval, it was agreed that the Health Committee should co-operate in the establishment of Family Welfare Centres and the voluntary effort was transferred from the Ardwick Town Hall to the Ardwick Maternity and Child Welfare Centre.

The Family Welfare Centres are under the supervision of a psychiatrist, Dr. Gertrude Jefferson, who is assisted by Dr. Margaret Platt and Dr. Oldham, together with Mrs. Nancy Lingard, psychiatric social worker, Mrs. C. H. Spafford, an expert in domestic management, and Mrs. V. T. Holmes, as secretary-receptionist.

During 1948 the Ardwick Centre was open from 5-30 to approximately 8-0 p.m. each Thursday evening, whilst the second Centre opened at Northenden Maternity and Child Welfare Centre in May, 1948, was open between 2 p.m. and 4 p.m. on Wednesday of each week. To meet the needs and growth of this service it has now been necessary to inaugurate an additional session at the Ardwick Centre on Monday evening from 6 to 8 p.m.

During 1949 at Ardwick, 591 interviews were given to 204 applicants, and at Northenden 311 interviews were given to 89 applicants. New cases at Ardwick were 146 and at Northenden 66.

Inauguration of the second session has been a great advantage to the efficiency of the work, as it has been found that to do any permanent good for the applicants, interviews take on an average half an hour to complete, with longer periods for difficult cases.

Many of the cases referred to the Centres are from the Marriage Guidance Council, whilst others whose difficulties are chiefly family problems or adolescent conflicts are referred from the Psychiatric Clinic at Manchester Royal Infirmary.

Other sources are—

1. Health Department (Maternity and Child Welfare Services).
2. Hospitals and doctors.
3. Citizens' Advice Bureau.
4. Probation Officers.
5. Moral Welfare Associations.
6. Association for Mental Health.
7. School and University.
8. Clergy.
9. Solicitors.
10. Private sources.

The problems that are dealt with at the Centres are similar in nature to those dealt with previously and roughly fall within the following groups :—

- (a) Disharmony. Under this heading are included :—
 - (i) family difficulties, chiefly connected with the housing and often associated with financial troubles ;
 - (ii) unhappiness due to unfaithfulness past or present ;
 - (iii) unhappiness connected with psychopathic tendencies in one or both partners, showing itself in drunkenness and violence. These cases were relatively rare.
 - (iv) unhappiness due to emotional instability in one or both partners.
- (b) Separation—the marriage being already broken before the applicant attended the centre.
- (c) Difficulties on the physical side of sex, including cases of doubt as to fitness for marriage and menopausal disturbances.
- (d) Adolescents and young adults suffering from emotional immaturity which interferes with their development of normal social contacts (including homo-sexual tendencies).
- (e) Enuresis in adolescence, including help given to parents with younger children who were not eligible to attend the centre.
- (f) Delinquents and mental defectives.

The staff at the Centres still continue to find that disharmony in the home, mainly the result of bad housing, represents the majority of cases presented to them.

Considerable help has been given to young couples with problems relating to the physical side of marriage, and the cases of adolescent maladjustment, though few in number, have benefited greatly.

Cases sent by Probation Officers are time-consuming, as their personal difficulties require sorting out by the doctors, and are often supplemented by visits to the homes by the Psychiatric Social Worker.

Many mothers seek advice in the management of their difficult children, and, in spite of the fact that the children are not seen, it has been possible to assist the parents in the better handling of their children.

These are the largest groups, but there are many applicants who come with individual problems related to general maladjustment, and by helping them in the early stages of their difficulties they are thus prevented from developing neurotic tendencies which would handicap them in their daily life and work.

It is difficult to assess in figures the amount of good this service contributes to the community, but the increasing number of attendances appears to indicate the need for the work and its wide appeal.

The fundamental aim of the Family Welfare Centre is preventive and constructive, and its development is materially dependent on knowledge of the service being publicised in the right quarters so that young people entering upon life with difficulties can be assisted.

MUNICIPAL HOSTELS.

Walton House. Manager : H. R. Gomersall.

Under the provisions of the Housing of the Working Classes Act, 1890, Local Authorities were empowered to erect Common Lodging Houses, and in 1891 the Corporation acquired certain condemned property known as the Harrison Street area, at a cost of £2,584, and erected in 1899 a Common Lodging House for men with accommodation for 363 persons.

In 1909, in order to meet the need, it was necessary to enlarge the building, and further cubicles were added at a cost of £3,500, bringing the total accommodation available up to 465 cubicles.

Major alterations which have taken place from time to time, including the provision of staff dining rooms, have reduced the cubicle accommodation to 454 beds.

The hostel provides facilities for washing and cooking to residents. There is a smoke room and reading room for their use, and a work room where they can repair their footwear, etc.

At nominal charges the following additional services are also provided :— laundry, bathing, lockers, parcels room and early calling.

A canteen and grocer's shop where the men can purchase cheap meals and provisions are situated on the premises.

The laundry, in addition to the work provided by residents, also completes work for other sections of the Corporation. This is mainly the washing of the towels used in the Public Conveniences and soiled linen from Ashton House.

The hostel has always been a popular residence for the men who use this class of accommodation, and during 1949 was full to capacity, a total of 1,364 requests for accommodation having to be refused.

The charges for the various services provided were as follows :—

Rent of cubicle	... ..	1s. 6d. per night.
		or 10s. per week
Bath .. .. .	.. .. .	2d. (Soap and towel provided.)
Lockers	small ..	6d. per six months.
	large ..	1s. per six months.
Parcels .. ..	.. .. .	1d. per week.
Early calling ..	.. ..	nightly 1d.
		weekly 4d.

Ashton House. Manageress : Miss S. J. Bayley.

Ashton House is a Municipal Hostel for Women, in Corporation Street, Manchester, and was erected on land given for the purpose by the Improvements Committee. The erection was completed in September, 1910, at a cost of £11,000 for the building and £1,880 for furnishings, and provides accommodation in separate cubicles for 210 women.

The Hostel, similarly to Walton House, is registered as a Common Lodging House, and is required to comply with the regulations and bye-laws relating to Common Lodging Houses.

Similar facilities to those at the men's hostel are provided for the residents. The canteen is not put to such great use as by the men, due to the fact that the women are more inclined to cook for themselves, nor does the hostel provide a laundry service other than the equipment used by the residents themselves.

Although not as popular as the men's hostel, the average daily numbers accommodated at Ashton House have shown an increase each year, and in 1949 reached a record average of 184 persons.

	Year	1949	1948	1947	1946	1945
Daily average accommodation ..		184	182	161	146	133

The charges for the various services provided were as follows :—

Rent of cubicle	1s. 3d. per night,
	or 8s. 6d. per week.
Bath	2d. (Soap and towel provided.)
Lockers small ..	3d. per six months.
	large .. 6d. per six months.
Parcels	1d. per week.

SANITARY SECTION.

By J. Lawson, M.R.San.I., Chief Sanitary Inspector.

STAFF.

J. Lawson, M.R.SAN.I.	..	..	..	..	..	..	..	..	Chief Sanitary Inspector
A. Denman, M.R.SAN.I.	..	..	..	..	..	..	..	..	Deputy Chief Sanitary Inspector
J. Graham, M.R.SAN.I.	..	..	..	..	..	..	..	..	Assistant Chief Sanitary Inspector

General.

The improvement in the staff position was maintained, making it possible to direct the activities of the inspectors increasingly to those of their manifold duties which are preventive in character; in this connection several surveys of various types of premises were effected during the year.

Supervision of the preparation, storage, and sale of food received increased attention and surveys included food shops, milk shops, restaurants, including civic establishments, school meals service and the sale of food on open sites.

The Hotel and Catering Trades Exhibition held in Manchester early in the year afforded an excellent opportunity to promote knowledge of hygienic practice in restaurant kitchen operation. An interesting departmental exhibit received favourable press comment and attracted considerable attention from visitors, who numbered approximately 65,000 during the 10 days on which the exhibition was open.

The work connected with the supervision of food premises is directed mainly to the educative aspect, but in several cases in which evidence of gross neglect was revealed on inspection, statutory procedure was invoked against the offenders; it was found necessary in 7 cases to institute legal proceedings for serious infringements of Section 13 of the Food and Drugs Act, 1938, relating to the prevention of food contamination and fines totalling £196 were imposed with salutary effect.

In the administration of the Byelaws as to the sale of food on open sites, vendors found to be contravening the provisions were cautioned, but 20 persons who committed further offences were summoned with a resultant clean-up in this class of food trading.

The investigation of complaints, concerned mainly with structural and sanitary defects in dwelling-houses, remains a major activity in the duties of the inspectors. The number of complaints totalled 19,686, being an increase of 1,698 over the 1948 figures, and is largely a reflection of the continuing decay of house property situated in potential clearance areas, where voluntary maintenance is infrequently effected.

Under the byelaws relating to houses let-in-lodgings the inspectors carried out a comprehensive survey which was confined to those houses in which two or more families are "lodged" and excluded "lodgers" who are married sons or daughters of the tenant. The survey disclosed that in the "farmed" houses, i.e., those in which the tenant does not himself reside, unsatisfactory conditions exist to a much greater extent than in houses in which the tenant is present to exercise supervision, particularly regarding sanitary appliances, etc., used in common.

The results of the survey indicated the desirability of a resident caretaker in "farmed" houses, and a clause to this end was inserted in the Corporation Bill promoted during the year.

Another survey was concerned with the proposed "Central Smokeless Area" in the City, particulars being obtained concerning all fireplaces, furnaces, etc., capable of producing smoke, together with the type of fuel in use and other information for submission by the Town Clerk to the Minister of Health as a preliminary step in the procedure within the powers of the Corporation in this matter.

The last of three special courses of training for ex-service student sanitary inspectors was completed during the year; these full time courses were sponsored by the Government and in January, 1946, the College of Technology, in Manchester, was the first to give effect to the training arrangements. Inspectors in the Health Department have participated actively in both the theoretical and practical training of the 90 students, who had been selected by an interviewing panel of the Ministry as being suitable for training.

Practical training has also been given by the inspectors to a number of students in connection with similar courses operating at the Salford Royal Technical College. The efforts of the inspectors to ensure the success of the scheme have been made during a period of heavy pressure of normal duties and have been accorded due commendation.

More detailed information on the work of the section is given under the appropriate headings later in the report.

It is right to express appreciation of the undoubted *esprit-de-corps* in the section and of the ready manner in which the staff has met every call for additional effort during a strenuous year.

Preparation, Storage, and Sale of Food.

The greatly increased publicity given by the press and radio to questions of food hygiene, has focussed public attention on the importance of hygienic practice and has facilitated the efforts of the inspectors towards the attainment of better standards in this respect.

Inspections of all classes of food premises have been well maintained and though it was necessary to institute court proceedings in certain cases—to which reference is made later—the legal action taken is not indicative of sub-standard conditions generally in the City.

The issue of new catering licences by the local Food Executive Committee continues to be subject to approval by the Health Department of the premises concerned, as to their suitability for food preparation purposes. As a result of the relaxation in the degree of control exercised by the Ministry in granting such licences, there was a substantial increase during the year in the number of premises inspected by the Department, following applications for catering licences.

Most of the applications were concerned with proposals to prepare and sell snacks and beverages in small shop premises with living accommodation in the rooms behind the shop. In such circumstances the occupiers are required by the Department to secure complete separation of domestic processes from the preparation of food for sale and the cleansing of trade utensils and equipment, in order to minimise the risk of contamination of food. In some of these cases the applications were withdrawn as the occupiers were unable or unwilling to fulfill the requirements necessary to ensure compliance with the provisions of the Food and Drugs Act.

Earlier investigations connected with the occurrence of food poisoning have revealed the presence of heavy growths of various food poisoning organisms in meat and fat debris from machines used for bacon and meat slicing; in consequence, attention has been directed to the condition and the technique of cleansing these appliances in restaurants, canteens and food shops. It was found that the design and construction of slicing machines in use varied considerably, especially as to the facility with which the shield plates to the cutting blades could be dismantled for cleansing purposes. In general, this factor gave rise to a corresponding variation in the degree of hygienic maintenance of the appliances.

Samples of meat and fat debris from the machines and swabs from the cutting blades have been examined bacteriologically at the Public Health Laboratory. The results indicated wide variations in cleansing practice and have confirmed the need for strict attention to regular cleansing of equipment.

Routine visits made by the inspectors in the supervision of food premises and their everyday contacts with managements and operatives provide many opportunities for the dissemination of hygienic principles. This aspect of the inspectors' functions was emphasized in their participation in a departmental exhibit at the Hotel and Catering Trades Exhibition held during the year in the City and attended by 65,000 people. A fully equipped hygienic restaurant kitchen with tiled floor and walls, modern washing up and ablution facilities, etc., was set up, together with a vividly contrasting sordid and vermin infested kitchen displaying every hygienic contravention and bearing the non-committal caption "Believe it or Not." Sanitary inspectors were in attendance at these exhibits throughout the 10 days of the exhibition, and answered innumerable questions on various aspects of food hygiene.

The inspectors also attended a complementary exhibit by the Ministry of Food for the purpose of furnishing information to the public of the Department's responsibilities in relation to food premises.

Restaurant, Canteen, and Hotel Kitchens.

The inspection of these premises is an important duty of the section, attention being given primarily to those portions of the premises where food is prepared or stored, in the knowledge that a palatial dining room is not necessarily indicative of hygienic conditions behind the serving hatch.

Marked improvements have been noted in many establishments with regard to kitchen lay-out, food storage facilities and the arrangements for cleansing cutlery, crockery, and utensils; much has been achieved in the latter respect by the provision of adequate hot water supply, the use of suitable detergents and the installation, in the larger premises, of dish washing machines.

Management and staff are displaying an increasing appreciation of the importance of personal cleanliness in food handling, especially as to the need for careful hand washing after the use of a sanitary convenience.

The policy of the Department is designed to achieve hygienic standards and practice by advisory or cautionary procedure, but in one case it was necessary to institute legal proceedings against the proprietor of a restaurant in which several contraventions of Section 13 of the Food and Drugs Act were revealed on inspection.

The Ministry of Works forwarded to the Department for scrutiny applications made to them for authorisation of extensive improvements to restaurants, etc. In some of these cases the proposals included works not essential to statutory requirements and reports to this effect were sent to the Ministry.

Plans concerned with new kitchen premises or extensions are referred by the City Architect to the Health Department in order that the requirements of the Food and Drugs Act may be fulfilled and specifications are furnished accordingly.

Bakehouses.

In the course of duties concerned with the hygiene of food preparation in bakehouses, investigations were made into the presence in machine-made bread, of foreign matter closely resembling rodent excreta. It was found that small portions of blackened grease had found their way into the loaves by reason of excessive machine lubrication and undue wear of bearings in the plant used for moulding dough. Prompt measures were taken to secure closer supervision of the extent and frequency of lubrication and the renewal of badly worn elements in the plant.

Routine inspection of bakehouses disclosed serious contraventions of Section 13 of the Food and Drugs Act, 1938, at two of these premises; legal proceedings were instituted in both cases and fines of £93 and £18 were imposed by the magistrates. Proceedings were taken additionally against the manager of one of the bakehouses for a personal infringement of sub-section 2 of Section 13 of the Act and a fine of £5 was imposed upon him.

In cases where minor contraventions were found on inspection, the unsatisfactory conditions were rectified on representations being made to the occupier of the premises.

The last of the underground bakehouses in the City was closed during the year following action taken under the provisions of Section 54 of the Factories Act.

Registrable Premises (Section 14, Food and Drugs Act, 1938).

There are 457 premises registered under the provisions of Section 14, Food and Drugs Act, 1938, relating to the requirements of registration of premises in which the preparation or manufacture of sausages or potted, pressed, pickled, or preserved food intended for sale is carried on. Section 14 is also applicable to the sale, manufacture or storage of ice cream, and particulars of registrations in this connection are mentioned in the "Milk Control" section of the report.

The processes carried on at the 457 registered premises are concerned mainly with the preparation of meat products and the supervision exercised is designed to prevent the development of conditions which could readily give rise to serious risk to public health.

Following an inspection of premises in which large scale preparation and distribution of meat products is carried on, it was necessary to institute legal proceedings against the occupier, who was fined £20 for infringements of the provisions of Section 13 of the Act; on subsequent inspections, the premises were found to be well maintained.

During the year 25 premises were placed on the register and 6 were deleted on discontinuance of the business.

Food Shops.

Inspections of all types of food shops were well maintained, particular attention being given to the adequacy of existing facilities for personal cleanliness in food handling and for cleansing utensils used in the preparation and distribution of food sold by retail. Notwithstanding the prevailing high cost of installing water heaters, new sinks, wash bowls, and the necessary drainage, appreciable improvements were secured and better refrigeration arrangements were provided at many grocers and butchers establishments as a result of representations by the Department.

The inspectors continue to stress the importance of hygienic practice in food handling, storage and sale; in many cases their advice enabled shopkeepers to minimise risks of food contamination arising from lack of space in shops and food stores or by unsuitable lay-out of equipment, etc.

Legal proceedings were taken against the occupier of a fried fish shop where serious neglect had given rise to unhygienic conditions of food preparation; the proprietor of a cooked meat and provision shop was also prosecuted for offences concerned with unsatisfactory conditions of food storage and sale. In both cases the proceedings were instituted under Section 13 of the Food and Drugs Act, 1938, and fines of £10 and £40 respectively were imposed by the Magistrates.

Sale of Food Outdoors from Vehicles, Receptacles, etc.

Vigorous action was taken to enforce the powers of the Corporation as to the sale of food outdoors by itinerant and other food vendors. The provisions of Section 41 of the Manchester Corporation Act, 1946, requiring registration of food hawkers and their storage premises were reinforced by new byelaws which became operative on the 9th May, 1949, respecting the sale of food on open sites in the central mile of the City area. These byelaws require, *inter alia*, paving and draining of open sites and the provision of ablution facilities and are an extension of previous byelaws applicable only in the outer portions of the City; the latter powers were intended primarily to regulate open market sites where food is sold.

In the post-war years, sites in the City centre were used extensively by "hawkers," principally of fruit, giving rise to unsightly and insanitary conditions in several of the principal thoroughfares. Intensive supervision of these sites under the new byelaw provisions together with other measures taken by the Corporation, have resulted in an effective "clean up" in this type of trading. In most cases cautionary letters produced the desired effect, but 20 persistent offenders were prosecuted for 90 infringements and fines totalling £67 10s. were imposed by the Justices.

In addition to these measures of control, the provisions of Section 41 of the Manchester Corporation Act, 1946, regarding registration of outdoor food vendors and their storage premises were actively enforced; the inspectors reported a continued improvement in the cleanliness of food vehicles, storage premises and methods of food display and handling. There are now 389 persons registered under Section 41, together with 130 storage premises, some of which are used in common by several vendors. Included in the number registered are 8 proprietors of mobile fish and chip vehicles and 8 persons operating coffee and snack stalls.

In 4 cases legal proceedings were instituted against unregistered persons selling food outdoors after being cautioned and fines amounting to £4 10s. were inflicted; in addition, 3 of these persons were fined a total of £3 10s. under Section 66 of the Manchester Corporation Act, 1934, relating to the inscription of the name and address of food vendors on their vehicles, stalls, etc.

One of these cases was concerned with the sale of "meat" sandwiches outside a large football ground; although a false name and address was furnished by the offender, investigations disclosed that the food was prepared under insanitary conditions in a small dwelling house; proceedings for this latter offence were taken under Section 13 of the Food and Drugs Act and an additional fine of £10 was imposed.

Arrangements exist in the City whereby registered food vendors and other persons engaged in the distribution of food outdoors may use, free of cost to themselves, the washing facilities at certain public conveniences. The response at the inception of the scheme was encouraging and 244 persons, including milk and bread roundsmen, were supplied on application with permits to use the free facilities, but a progressive reduction has been noted in the number who take advantage of the facilities available to them.

Model Byelaws: Handling, Wrapping, and Delivery of Food and Sale of Food in the open air.

Preliminary action was taken with a view to the making of byelaws based on the model byelaws—issued towards the end of the year by the Ministry of Food—as to the handling, wrapping, and delivery of food and the sale of food in the open air. The byelaws concerned with the delivery of food will provide useful new powers to secure hygienic practice in the conveyance of food to the consumer; notably in the requirement, where reasonably necessary, that food during transit shall be so covered as to protect it from dust, mud, animals, rodents, flies, etc.

Those of the byelaws which are applicable to a room in which food is handled, wrapped, or delivered will strengthen the existing powers contained in Section 13 of the Food and Drugs Act in relation to the prevention of the risk of contamination of food.

The requirement of a notice near every sanitary convenience, requesting food handlers to wash their hands after using a sanitary convenience, is of value as an educational measure. The observance of personal hygiene in this respect is of such importance in the prevention of the spread of certain infections by carriers, that in practice, the request notice could well be supplemented by the display of the provisions of byelaw 2 under which personal cleanliness is obligatory.

The byelaws as to the sale and exposure for sale of food in the open air are more comprehensive than the existing powers of the Corporation with respect to the sale of food on open sites and the registration of food hawkers.

With reference to the requirement in the model byelaws of suitable and sufficient lighting to enable food vendors outdoors to ensure that the relevant byelaws are complied with, it is of interest that some street traders in the City already illuminate their barrows or vehicles during the hours of darkness, indicating that the provision is not only practicable but also of trading value.

Adulteration of Food.

Administrative action under the Acts and Regulations concerned with the composition of food and drugs sold to the public is directed preponderantly to the detection of adulteration or irregularities. In general, food manufacturers and vendors exercise great care in the avoidance of deceptive practices and by close supervision maintain the quality of the commodities sold.

In cases where it is necessary to institute legal proceedings against vendors, such action and the resultant publicity have a deterrent effect which could well be supplemented by more discriminate methods of purchase by the general public, especially by their patronage of reputable traders. Whilst the average purchaser cannot be expected to be conversant with the law relating to the adulteration or misdescription of food offered for sale, the use of specific terms in purchasing would tend to minimise the occurrence of deceptive practice by vendors. The law prohibits the addition of other substances to food, the abstraction of any food constituent and requires also that food shall be pure, but the number of foods having statutory standards of composition constitutes only a small proportion of the food commodities sold. In recent years, legislation concerned with the protection of food purchasers has been strengthened by new orders and regulations dealing with labelling requirements, declaration of ingredients (although this is confined quantitatively to vitamins and minerals), false labelling and advertisement, the use of preservatives and misleading claims as to nutritive properties.

The need for the application of statutory standards of composition to additional articles of food has long been recognised and the prescription of further standards by the Food Standards Committee of the Ministry is anticipated with interest. These standards strengthen the powers of the Corporation in the protection of the consumer and serve also to educate the public in the nutritive content of foodstuffs offered for sale.

During 1949 the sampling officers obtained 2,913 samples for submission to the Public Analyst; this total was less than in the previous year as a consequence of the removal and re-arrangement of the laboratories. The samples taken were largely representative of the types of food purchased for use in the average household; particulars of the samples and the results of analyses are shown separately in the report of the Public Analyst.

Milk is recognised as being readily capable of adulteration or fat abstraction and of the 1,118 samples of milk submitted to the Public Analyst, 187 failed to comply with the presumptive legal standard specified in the Sale of Milk Regulations, 1939, namely, 3 per cent. fat and 8.5 per cent. solids not fat.

Legal proceedings were instituted against 19 of the farmer-producers concerned, fines and costs amounting to £67 16s. 2d. being imposed. In the remaining cases, where the transgressions were of a minor character, cautionary communications were sent to the persons responsible.

The total of 2,913 samples submitted to the Public Analyst by the sampling officers is exclusive of 129 milk samples, which proved to be genuine, submitted to the Analyst by the Milk Control Section.

Contraventions of the Public Health (Preservatives in Food) Regulations, 1926-1948, included the following imported articles of food:—Tomato Sauce from Eire, Salad Cream from Holland and "Gruyere" cheese from Italy. In the first two cases mentioned, legal proceedings were instituted and penalties were imposed by the Justices; the Ministry of Food was notified of the result of the analysis of the Italian "Gruyere" cheese.

In addition to this action under the Regulations, a manufacturer of coffee and chicory essence was cautioned and in the other cases investigations are continuing.

The presence of mineral oil in cake was revealed in three samples submitted for analysis; in two of these cases legal proceedings against the offenders resulted in the imposition of fines; in the remaining case a cautionary letter was sent to the baker concerned.

Court proceedings were taken in six cases relating to deficiencies in the meat content of sausages and fines totalling £53 were imposed on the offenders; in another case of this type, the meat deficiency was less serious and the vendor was cautioned.

Seasonal commodities obtained for analysis included mincemeat, two samples of which failed to comply with the requisite standard prescribed in the Preserves Orders, 1944-1949; the manufacturer of a home product and the importer of an Australian product were cautioned in these instances.

Warranties.

The sampling officers note that some new entrants in the food retail trade are not conversant with the action open to them respecting warranties relating to food purchased for re-sale.

In certain cases a warranty may prove to be a valuable means of defence in legal proceedings taken under the Act or Regulations. Appropriate information is offered by the sampling officers where necessary and the person concerned is usually advised also to seek the guidance of a trade organisation.

Adulterated and Other Unsatisfactory Statutory Samples
and action taken.

Articles	Adulterated or unsatisfactory	Cautioned	Legal proceeding taken	Number of summonses issued	Number of fines imposed	Dismissed or withdrawn	Amount of fines	Amount of costs
							£ s. d.	£ s. d.
Cakes.. . . .	3	1	2	2	2	—	4 0 0	—
Coffee and chicory essence	1	1	—	—	—	—	—	—
Milk	166	147	19	19	19	—	40 10 0	27 6 2
Mincemeat	2	2	—	—	—	—	—	—
Salad Cream	1	—	1	4	1	3	15 0 0	2 2 0
Sausage	7	1	6	6	6	—	53 0 0	—
Shredded beef suet.. . . .	1	1	—	—	—	—	—	—
Tomato sauce	1	—	1	2	—	2*	—	—
Totals	182	153	29	33	28	5	112 10 0	29 8 2

* Summonses taken out by defendant against manufacturer who was fined £10 in each of 2 summonses,

Public Health Condensed Milk Regulations, 1923-48.

Public Health (Dried Milk) Regulations, 1923-48.

These regulations are concerned with the quality of condensed and dried milks and prescribe the rules as to labelling of tins or other containers; certain milks, imported under licence, are exempted from the provisions. Amongst other requirements, labels must indicate clearly and in accordance with the Regulations, the quality of condensed or dried milk, the equivalents in liquid milk, whether it is sweetened or otherwise, and suitability of the milk for babies. Standards for fat and non-fatty solids are prescribed for the various condensed and dried milks.

The sampling officers submitted 22 samples of condensed milks and 17 samples of dried milks for examination, but no infringements of the Regulations were disclosed.

Butter and Margarine Factories and Wholesale Premises.

Section 34, Food and Drugs Act, 1938.

Visits were made to three factories and 99 wholesale premises registered under the Act but no contraventions of the requirements were reported. Three changes in occupation of premises were dealt with and the register amended accordingly.

Ice Cream.

Early in the year the Minister of Food notified local authorities that additional supplies of sugar and in some cases fat, had been made available to ice cream manufacturers and that manufacturers availing themselves of the additional supplies had been required to sign an undertaking that their ice cream will have a minimum fat content of $2\frac{1}{2}$ per cent. It was also indicated that the Food Standards Committee were considering prescribing a legal standard of composition for ice cream.

The Public Analyst certified that the fat content of the 60 samples obtained as ice cream ranged from 1.7 per cent to 10.91 per cent. Copies of all the analyses were sent to the Minister of Food.

Fat Content of Ice Cream Samples.

Fat Content	Samples	Fat Content	Samples
Less than $2\frac{1}{2}$ %	4	$6\frac{1}{2}$ %— $7\frac{1}{2}$ %	7
$2\frac{1}{2}$ — $3\frac{1}{2}$ %	9	$7\frac{1}{2}$ %— $8\frac{1}{2}$ %	8
$3\frac{1}{2}$ %— $4\frac{1}{2}$ %	3	$8\frac{1}{2}$ %— $9\frac{1}{2}$ %	9
$4\frac{1}{2}$ %— $5\frac{1}{2}$ %	8	$9\frac{1}{2}$ %— $10\frac{1}{2}$ %	5
$5\frac{1}{2}$ %— $6\frac{1}{2}$ %	6	$10\frac{1}{2}$ %—11%	1

These results again show wide variation in fat content although an improvement in quality generally is evident in comparison with samples taken in recent years. Until circumstances allow the prescription of a statutory standard of composition for ice cream, the quality will remain obscure and the public will not have that degree of confidence in this attractive commodity which is their due.

Dwelling-house Disrepair.

The work of the district sanitary inspectors continues to be devoted mainly to the investigation of complaints received from tenants concerning structural and sanitary defects in dwelling-houses and subsequent statutory action to secure the completion of repairs. Of the total of 19,686 complaints received during the year, 18,034 related to housing defects, often of a serious nature; these included such matters as badly leaking roofs and eavesgutters, bulged ceilings and dampness penetrating through porous external walls.

A substantial proportion of the property involved is situated in potential clearance areas and although worn out and beyond the capability of proper repair, these dwellings remain occupied by reason of the lack of new housing accommodation.

The extent to which labour and materials in short supply should be utilised in prolonging the life of dilapidated slum property is a matter of serious concern and in general the action taken is directed to the securing of a weathertight structure and a reasonable degree of internal maintenance.

This type of property is deteriorating steadily owing to the cessation of repairs of a preventive nature. Inspections reveal extensive perished brickwork and decayed roof timbers, slates, lead gutter linings and wooden casings and repairs in these cases are usually of a palliative character.

In an increasing number of cases, advanced decay has produced dangerous conditions involving demolition of the houses and rehousing of the occupants. Not infrequently, owners of house property which is no longer profitable to maintain, request that the Corporation should take over the ownership and management of the houses or apply Housing Act procedure to secure demolition of the property.

The practice of abandoning property or conveying it free of cost to illiterate and impecunious persons is becoming common; an old age pensioner who thus became a "man of property" commented to an inspector that he had been led to believe that the house rentals would augment his pension; the receipt of notices for urgently needed and costly repairs and the inevitable subsequent Court proceedings sadly disillusioned him and raises difficulties associated with the ultimate recovery of the cost of repairs executed in default by the Corporation.

Cases have arisen where beneficiaries under wills refrained from proving wills upon realising that the house property concerned was likely to be a financial liability.

It was necessary in 43 cases to serve notices under the provisions of Sec. 285 (F) of the Public Health Act, 1936, as the ownership of the property could not be established after exhaustive enquiries had been made; repairs in these instances were executed by the Department and the costs became a charge against the property.

Certain demolition contractors are buying up old terrace-type houses in the anticipation that the acceleration of dilapidation will result in closure of the houses because of danger to the occupants and that their rehousing by the Corporation will afford vacant possession, and enable the owner to demolish the property for the value of materials such as lead, timber, etc., in short supply.

The execution of voluntary repairs to the older houses continues to be confined generally to work of an urgent character; it is probable that the increasing cost of repairs is a factor in this connection. There is evidence of a growing tendency for owners to defer repairs until statutory notices have been served upon them.

Certain owners execute repairs only when legal proceedings are imminent or when orders have been made by the Court. In the majority of cases, however, the requirements of repair notices are fulfilled within a reasonable time although appreciable delay occurs in cases where new roof timber and slates—particularly the larger sizes—are needed, as these are in short supply.

The number of inspections and re-inspections of houses in connection with complaints about disrepair totalled 65,412 and necessitated the service of 7,546 statutory notices relating to 8,941 houses, following informal intimations to the owners concerned.

A considerable volume of administrative work was involved in the issue of the various types of notices required and in the preparation of reports concerning 183 cases in which legal proceedings were instituted for non-compliance with notices or nuisance orders; in 60 of the latter cases, the repairs were executed in default by the Department's drainage, etc., works branch.

Other work executed in default and mainly concerned with defective drainage or sanitary appliances, involved 454 premises, whilst similar work was carried out at the request of owners at 202 premises. In addition, the drainage branch executed work concerned with the maintenance of public sewers situate on private property at 850 premises. This work was done under the provisions of Sections 23/24 of the Public Health Act, 1936, and Section 33 of the Manchester Corporation Act, 1946, the expenses incurred being recoverable from the owners of the premises concerned.

In the course of their inspections of dwelling-houses, the inspectors have observed that many tenants are overcoming their former reluctance to expend money on minor improvements in houses belonging to a "landlord." Modern sinks and firegrates have been installed and extensive re-decorating carried out by "houseproud" housewives to improve the amenities in even the poorest types of dwellings.

Examination of Drains.

In many cases it is impossible from a superficial inspection to ascertain the actual condition of drains about which complaints of chokage, etc., have been received. Where the provisions are applicable, action is taken under Section 48 of the Public Health Act, 1936, whereby a local authority may open the ground on the premises involved, for the purpose of examining drains or sewers and applying specified tests. The Manchester Corporation Act of 1946 confers further powers in this respect enabling the Medical Officer of Health or Sanitary Inspector to cause expeditious action to be taken in these cases.

Examinations are carried out on the expiration of 24 hour's notice served on occupiers of premises under the provisions of Section 287 of the Public Health Act, 1936, and the drains at 290 premises were examined during the year under the procedure mentioned.

Various conditions gave rise to the examinations, including chokages, percolation of offensive liquid into basements or sub-floor cavities, subsidence of surfaces over the probable course of drains in yards, gardens, etc., rat burrowing and the apparent connection of rainwater pipes to foul drains without intervening trapping. In the course of examination, drains are exposed at several points and in some cases it is necessary to excavate to such depth as to necessitate the provision of timber framing as a safety measure.

In the older parts of the City, examinations sometimes disclose—although progressively infrequently—"period" modes of drainage such as brick conduits with flag covers, egg shaped pipes without sockets or socketed pipes without cement or other jointing substance.

In the outer districts chokages are found occasionally to be due to the roots of adjacent trees having entered outlet drains to form an impenetrable barrier to the flow of drainage matter. In subsequent reconstruction, the provision of cement joints prevents a recurrence of trouble from this source.

Notices are served under Section 39 of the Public Health Act for remedial work to remedy the defects revealed by the examinations and in many cases the work is executed by the Department in default or at the request of owners.

In cases where defective conduits prove to be public sewers to which Sections 23/24 of the Act apply, remedial work is carried out under the "maintenance" provisions in those sections, the expenses incurred being charged to the owners of the premises served by the sewers concerned.

In connection with arrangements made by the City Surveyor for the disconnection of disused drains of sunken Anderson Shelters from the house drains into which they discharged, approximately 2,000 visits were made by the sanitary inspectors to the 1,112 premises involved. The work entailed the removal of these temporary connections and making good the points of junction with the house drainage system, to obviate the risk of percolation into the sub soil of drainage matter from the disused conduits in the event of the occurrence of chokage and to remove a potential harbourage for rats.

Rent Restrictions Acts, 1920-39.

The number of applications from tenants for certificates of disrepair in dwelling-houses continue to decline, only 25 such applications being made under the provisions of the Acts. In 17 cases it was found on inspection that the houses concerned were not in a reasonable state of repair and appropriate certificates were issued to the tenants. Defects at 2 other houses were remedied prior to the consideration of the applications by the Committee and certificates were not issued.

The remaining 6 applications were made by tenants of houses subject to new control under the 1939 Act and upon being advised by the Town Clerk that certificates of disrepair in these cases would be of limited value to them, 5 of the tenants withdrew their applications. One tenant, however, requested that his case should proceed and a certificate was issued to him.

Supplementary action was taken by the Department under informal or statutory procedure to ensure that necessary repairs were carried out by the owners.

In 9 cases in which certificates of disrepair were issued to tenants, applications were made subsequently by the owners for reports under the provisions of the 1923 Act to the effect that the houses concerned had been placed in a reasonable state of repair. Reports were issued in 7 cases but were withheld in 2 others as the repairs had not been completed.

Common Lodging-houses.

Common lodging-houses are subject to supervision by the Department and are visited systematically by the district sanitary inspectors to secure compliance with statutory and byelaw provisions as to sanitary accommodation, water supply, washing facilities, overcrowding, cleanliness, and the prevention of the spread of infectious disease.

The means of escape in the case of fire at these establishments are also subject to approval by the Corporation, supervision in this respect being exercised by the City Architect's Department.

It may be of interest to mention that a common lodging-house is defined in the Public Health Act as a house, other than a public assistance institution, provided for the purpose of accommodating by night poor persons, not being members of the same family, who resort thereto and are allowed to occupy one common room for the purpose of eating or sleeping and includes, where part only of a house is so used, the part so used. Section 236 of the Act requires that no person shall keep a common lodging-house or receive a lodger therein unless he is registered as the keeper thereof.

Registration or renewal is conditional upon the Corporation being satisfied as to the fitness of the keeper or his deputy, and that the premises are suitable for use, sanitation and water supply are satisfactory and that in other respects, including means of escape in case of fire, the premises are suitably equipped for use as a common lodging-house. Registration may be refused if the use of the premises is likely to cause inconvenience or annoyance to persons residing in the neighbourhood.

In cases where the standard of maintenance is not satisfactory in all respects, renewal of registration is granted for a shorter period than the customary 12 months, to afford the keeper an opportunity to execute requisite works of repair, renewal of appliances, etc.

There are 15 common lodging-houses in the City with sleeping accommodation for 2,117 men and 210 women; two of these premises are owned by the Corporation and controlled by the Health Committee, the number of beds being 454 for men and 210 for women.

The establishments maintained by the Corporation and by social organisations have a higher standard of equipment and amenities than the average and the demand for male accommodation usually exceeds the number of beds available.

The standard of equipment, particularly bedding and furniture, continues to improve as supplies become more readily available, although several lodging-house keepers refer to difficulties arising from the increased cost of replacing equipment and of suitable labour for cleaning and maintenance of the premises.

It is recognised that common lodging-houses are especially liable to become infested by vermin introduced by casual lodgers of the itinerant type and proprietors are increasingly vigilant in the detection of infestation and the application of repressive measures. The use of D.D.T. compounds in spray form is carried out along with routine cleansing of dormitories and other common rooms; powder insecticide is applied to beds and furniture with satisfactory results. Lodgers are displaying a marked degree of co-operation in the reduction of body vermin infestation and 151 residents in various lodging-houses were cleansed voluntarily and their clothing disinfested at the Corporation's clinic at Monsall Hospital.

Where steam disinfecting appliances are available at the premises concerned, infested bedding and other articles are treated there, but in other cases the articles are removed by the Corporation for disinfestation at the Monsall station.

Only one case of infectious disease at a common lodging-house was notified during the year.

Houses-let-in-lodgings.

A survey of houses-let-in-lodgings carried out during the year disclosed that there are 834 houses in which two or more lodger families reside and these houses have been registered in accordance with the relevant byelaw provisions. This number is exclusive of houses in which married sons or daughters and their families are living with their parents and does not include 172 houses in which sub-tenants are accommodated under the "share your home" scheme sponsored by the Ministry.

Of the 834 registered houses, there are 364 "farmed" houses, i.e., those in which the tenant does not himself reside.

In 334 of the "farmed" houses, there was no resident caretaker and the inspections showed that in these cases there was a much lower standard of maintenance—particularly as to sanitary appliances and general cleanliness—than was found in houses with a caretaker or in non-"farmed" houses where the tenant was present to exercise personal supervision of the premises. The conditions revealed the necessity of requiring a resident caretaker in "farmed" houses and a clause with this object in view, has been inserted in the Corporation Bill promoted in 1949.

The requirements of the existing byelaws in the City are concerned with adequacy of closet accommodation, water supply, accommodation for washing and the storage, preparation and cooking of food, prevention of and safety from fire, cleansing and redecoration of premises, etc. Whilst the standard and maintenance of registered houses is improving generally, it was necessary to caution 430 tenants and to issue 44 notices for various byelaw contraventions.

Legal proceedings involving eight summonses resulted in fines amounting to £21 being imposed by the Court.

Canal Boats.

The dwelling accommodation on boats used for the conveyance of goods along the 11½ miles of canals within the City area is supervised under the provisions of the Public Health Act, 1936, and Regulations made in 1878 with minor amendments in 1925 and 1931.

There are 196 canal boats registered by the Corporation as dwellings and 618 inspections were made during the year.

Whilst a satisfactory standard was maintained generally, it was found necessary to serve notices respecting 9 infringements of the regulations; appropriate action was taken to secure remedial action in these cases.

No reports were received of the occurrence of infectious diseases on boats within the City area.

The need for new regulations, based on modern standards of hygiene and welfare, particularly for children, received appreciable publicity following a conference at which educational and other aspects of canal boat life were discussed.

It may be recalled that under the existing regulations the prescribed minimum air space in cabins is 60 cubic feet for adults and 40 cubic feet for a child under 12 years of age. It is found that on some boats reaching Manchester canals, the cabins contain approximately 200 cubic feet nett free air space and legally can be occupied by a man, wife and 2 children under twelve years of age.

The cabin is in effect a combined bed room, living room, kitchen, wash-house, and privy, whilst the sanitary and ablution arrangements are often of a primitive type. Moreover, the clean water supply is very limited as the regulations are fulfilled by the provision of a storage receptacle for 3 gallons of water.

Hygienic considerations apart, it is apparent that children reared aboard a canal boat are debarred from normal home life and recreational facilities; in this connection it may be stated that a large undertaking in the Manchester area does not allow women and children to dwell on the boats operated by the company.

Water Supply.

The water supply to the City is derived from impounding reservoirs at Thirlmere and Haweswater in the Lake District and reservoirs from moorland sources in the Longdendale Valley about 18 miles distant to the east of Manchester.

The Thirlmere and Haweswater reservoirs are approximately 80 miles to the N.N.W. of the City and constitute the main sources of the town's supply. These Lakeland sources are supplemented by the Longdendale reservoirs which first delivered water to the City in 1851.

Storage and service reservoirs are provided in suitable locations within a few miles of the City boundaries.

Town's water is laid on to all dwelling-houses in the City, with the exception of two old cottages in an isolated situation and supplied by a spring subject to regular sampling for analysis. Routine samples of the town's supply to domestic and other premises were taken by officers of the Health Department; one of these samples was found to be unsatisfactory with evidence of slight contamination, but the laboratory report on a subsequent sample revealed satisfactory results.

Particulars of analyses were sent to the Water Department who furnished the Medical Officer of Health with information concerning their samples taken, including reports on the sources of supply and the outlets of the subsidiary reservoirs.

The district sanitary inspectors reported upon 31 cases in which domestic supplies were inadequate by reason of insufficient pressure or other causes and these reports were referred for attention to the Water Department.

The Engineer and Manager of the Waterworks Department has furnished the following information about the water supply to the City:—

The water supply has been satisfactory both in quality and quantity.

Regular samples are taken for bacteriological examination of the raw water and of the treated water going into supply. Out of the 459 samples examined in 1949, 391 were found to be free from bacteria. Typical chemical analyses of the sources of supply are given herewith:—

TYPICAL ANALYSES. *January to December, 1949.*

THIRLMERE AND HAWESWATER LAKES.

The supply from these lakes is subject only to slight variations and the following are typical analyses.

	<i>Thirlmere</i>	<i>Haweswater</i>
pH value	6.4	7.1
Colour, p.p.m. platinum	11	13
Turbidity, p.p.m. silica	0.5	4.2
<i>Parts per million</i>		
Total solids dried at 180°C.	30.8	32.4
Free acidity as CO ₂	2.5	2.0
Alkalinity as CaCO ₃	9.6	13.0
Total hardness as CaCO ₃	16.3	18.8
Chlorides as Cl ₂	7.0	7.2
Nitrates as N ₂	0.17	0.14
Free and saline ammonia, NH ₃	0.018	0.012
Albuminoid ammonia, NH ₃	0.034	0.052
Oxygen absorbed test, 4 hours at 27°C.	0.78	0.70
Silica as SiO ₂	2.0	1.5
Iron as Fe	0.10	0.13
Manganese as Mn	0.06	

TYPICAL ANALYSES. *January to December, 1949.*

LONGDENDALE AQUEDUCT. RAW WATER.

This water supply is subject to wide fluctuations during the year and the following table gives an indication of these changes.

pH value	4.0	to	6.0
Colour, p.p.m. platinum	13	to	78
Turbidity, p.p.m. silica	3.0	to	21.0
<i>Parts per million</i>			
Total solids, dried at 180°C.	60	to	70
Free acidity as CO ₂	4.0	to	12.0
Alkalinity as CaCO ₃	nil	to	6.0
Total hardness as CaCO ₃	30	to	35
Chlorides as Cl ₂	9.0	to	11.5
Nitrates as N ₂	0.46	to	1.15
Free and saline ammonia, NH ₃	0.040	to	0.128
Albuminoid ammonia, NH ₃	0.036	to	0.170
Oxygen absorbed test, 4 hours at 27°C.	0.56	to	3.07
Silica as SiO ₂	8.0	to	11.0
Iron as Fe	0.15	to	0.45
Manganese as Mn	0.08	to	0.19

THIRLMERE SUPPLY. *As taken from house taps.*TYPICAL ANALYSES. *January to December, 1949.*

	Date	February 14	July 11	December 5
	Lab. No. ..	2089	2235	2539
pH value		6.90	7.30	6.90
Colour, p.p.m. platinum		15	16	17
Turbidity, p.p.m. silica		0.05	0.8	1.5
Odour: Cold		nil	nil	nil
Hot		nil	faint	nil
			earthy	
Taste: Cold or hot		nil	nil	nil

ANALYSES

Parts per million

Total solids dried at 180°C. ..	38.8	36.8	43.6
Free acidity as CO ₂	2.0	1.5	2.0
Free alkalinity as CaCO ₃	nil	nil	nil
Total alkalinity as CaCO ₃	12.0	12.0	12.0
Total hardness as CaCO ₃	22.5	20	24
Chlorides as Cl ₂	7.0	7.0	7.5
Nitrates as N ₂	0.42	0.35	0.49
Nitrites as N ₂	faint	faint	nil
	trace	trace	
Ammoniacal nitrogen, N ₂	0.005	0.005	nil
Albuminoid nitrogen, N ₂	0.031	0.018	0.031
Oxygen absorbed test, 4 hours at 27°C.	0.87	0.68	0.49
Silica as SiO ₂	2.0	2.0	1.5
Iron as Fe	0.20	0.20	0.23
Manganese as Mn	nil	nil	nil

NOTE.—Traces of nitrites, when present, are derived from the chloramine treatment.

LONGDENDALE SUPPLY. *As leaving Godley Reservoir.*TYPICAL ANALYSES. *January to December, 1949.*

	Date	February 21	July 4	December 19
	Lab. No. ..	2091	2211	2557
pH vaue		7.60	8.50	6.60
Colour, p.p.m. platinum		28	13	78
Turbidity, p.p.m. silica		6.8	4.2	20.7
Odour: Cold		nil	nil	nil
Hot		faint	faint	nil
		earthy		
Taste: Cold or hot		nil	nil	nil

ANALYSES

Parts per million

Total solids dried at 180°C ..	79.2	76.8	81.2
Free acidity as CO ₂	2.0	1.0	3.5
Free alkalinity as CaCO ₃	nil	nil	nil
Total alkalinity as CaCO ₃	11.0	11.0	8.0
Total hardness as CaCO ₃	37.5	37.5	35
Chlorides as Cl ₂	10.0	11.5	10.5
Nitrates as N ₂	1.15	0.79	0.74
Nitrites as N ₂	nil	faint	nil
		trace	
Ammoniacal nitrogen, N ₂	0.200	0.183	0.198
Albuminoid nitrogen, N ₂	0.044	0.059	0.074
Oxygen absorbed test 4 hours at 27°C.	1.62	0.99	3.07
Silica as SiO ₂	9.0	9.5	9.0
Iron as Fe	0.28	0.15	0.45
Manganese as Mn	0.14	0.15	0.13
Residual chlorine	0.34	0.20	0.38

NOTE.—The water is sterilised by the chloramine process, which accounts for the bulk of the ammoniacal nitrogen present and also for any traces of nitrites.

PLUMBO-SOLVENCY. *January to December, 1949.*

THIRLMERE SUPPLY.

The untreated water has a low plumbo-solvent action but it is neutralised with hydrated lime so that the pH value is raised to 7.0 to 7.5. Plumbo-solvency tests have not been carried out on this supply.

LONGDENDALE SUPPLY.

The raw water is capable of a marked plumbo-solvent action. It is neutralised with hydrated lime. The results obtained on distribution, when the water has been in contact with the lead service pipe for 8½ to 9 hours (overnight), have been as follows:—

<i>Date</i>	<i>pH value</i>	<i>Lead content as Pb. Parts per million</i>
February 7th	7.10	0.12
June 7th	7.30	0.16
November 28th	6.42	0.20
December 13th	6.30	0.42
December 20th	6.60	0.30

BACTERIOLOGICAL REPORT. *January to December, 1949.**Lakes, Aqueducts, and Service Reservoirs.*

	Total number of samples	Samples free from Coliform bacteria	Faecal Coli present		Non-faecal Coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
Haweswater Lake ..	0	0	0	0	0	0
Haweswater Aqueduct	0	0	0	0	0	0
Thirlmere Lake	0	0	0	0	0	0
Thirlmere Aqueduct ..	18	13	4	1-7	4	1-7
Longdendale Aqueduct	50	9	38	1-160	35	1-160
<i>Service Reservoirs</i>						
Audenshaw No. 1 ..	13	0	11	1-350	8	2-350
„ No. 2 ..	13	2	11	1-350	9	1-350
„ No. 3 ..	13	0	13	1-350	9	1-170
Denton No. 1	14	7	6	1-50	3	1-5
„ No. 2	15	7	7	1-50	5	1-11
Godley Inlet (Chlorinated)	50	43	6	1	1	1
Godley Outlet	51	43	5	1	3	1
Heaton Park	50	29	21	1-160	16	1-90
Prestwich No. 1 ..	50	43	6	1	4	1-2

Waters from Haweswater and Thirlmere lakes are chlorinated in the aqueducts near the headworks. The water is rechlorinated before it enters the Manchester area of supply. The Thirlmere Aqueduct results given above represent the water **prior** to this second chlorination.

Longdendale aqueduct water is chlorinated before it enters the Godley Reservoir and sufficient chlorine (as chloramine) is added to maintain a residual in the water leaving the reservoir.

BACTERIOLOGICAL REPORT. *January to December, 1949.*
Chlorinated Water Samples.

	Total number of samples	Samples free from Coliform bacteria	Faecal Coli present		Non faecal Coli present	
			No. of samples	No. per 100 mls.	No. of samples	No. per 100 mls.
Audenshaw	92	80	2	1-6	12	1-25(a)
Denton	48	35	7	1-3	11	1-10
Godley	64	63	0	0	1	1
Heaton Park	80	57	21	1-25	19	1-17
Prestwich	65	55	4	1	6	1-5
Thirlmere Aqueduct ..	110	101	2	2	8	1-2
Total	459	391	36	—	57	—

(a) One sample only contained 25 non-faecal coli per 100 mls. and this was taken from a standpipe. Excluding this sample, the coli count would be 1-3 per 100 mls. of water.

The Thirlmere and Longdendale supplies are treated with hydrated lime. This has proved effective in limiting the maximum lead content found in samples given overnight contact with lead service pipes to about 0.2 parts per million.

It has proved impracticable to prevent access of seagulls to the larger service reservoirs. Pollution from this source is dealt with by chlorination at the outlets of the reservoirs.

Infectious Diseases.

The district sanitary inspectors investigated the circumstances associated with 1,768 cases of notifiable disease, enquiries being directed to possible sources of infection and the prevention of the spread of disease.

In this connection 629 visits were concerned with tracing contacts with infected persons, including 101 enquiries about contacts with cases of smallpox which had arisen outside the City.

An outbreak of typhoid fever in the area of a neighbouring authority necessitated 273 visits to contacts resident in Manchester.

The inspectors also made 490 visits to the homes of persons suffering from tuberculosis.

Any insanitary conditions revealed in the course of the various investigations were dealt with under the appropriate statutory or other procedure.

Smoke Abatement.

In the course of their statutory duties concerning the abatement of smoke nuisances from non-domestic premises, the smoke inspectors carried out 498 timed observations of smoke emission detected in the systematic surveillance of industrial premises in the City. In 49 of these cases the emission was of such density and duration as to necessitate reports to the Committee and nuisance abatement notices were served on the occupiers of 23 of the premises concerned. In 6 cases, legal proceedings were instituted for non-compliance with smoke nuisance abatement orders and fines amounting to £41 5s. were imposed for these offences. In 19 cases where excessive smoke emission was reported, extenuating circumstances were associated with the occurrences and cautionary letters were sent to the management.

In addition to their statutory functions in the detection and abatement of smoke nuisance, the inspectors carry out a substantial amount of preventive work of an advisory character, 832 visits being made in this connection. In some cases unsatisfactory conditions of combustion in hand fired "Lancashire" boilers with natural draught were greatly improved by the replacement of existing defective firedoors by new firedoors of a type incorporating the result of research by the Fuel Research Station and described in their Fuel Research Technical Paper No. 55.

In other cases industrialists have installed mechanical stoking appliances or mechanical draught with satisfactory results after consultation with the smoke inspectors.

Certain types of boilers are inherently liable to produce black smoke in the combustion of bituminous fuel; in appropriate cases it has been possible to recommend the use of coke fuel, particularly where the demand for steam does not fluctuate and where economic considerations are not vital.

In every case in which a timed observation of dense smoke emission is made, the inspectors visit the premises to ascertain the cause of the emission and to discuss remedial measures with a principal of the undertaking.

In recent years, it has been customary to ascribe smoke emission to the inferior or unsuitable nature of the available fuel supply. The inspectors have noted a marked improvement in the quality and grading of industrial fuel during the last year or so and the main causes of smoke nuisance during 1949 were careless or unskilled firing and undue forcing of overloaded steam raising plant; in some of the latter cases the management were awaiting delivery of additional boiler plant to meet increased production demands.

Whilst many firemen in the area attend classes in boiler house practice, there is evidence of the need of a wide extension of basic technical training of this kind. Individual firemen have expressed their reluctance to give up their leisure hours to acquire certificates of proficiency which do not bring adequate financial recognition.

Arrangements were made at 4 industrial premises for the display of films dealing with subjects concerned with boiler house practice; the management granted facilities for the attendance of boiler room operatives who took part in the ensuing discussions.

Particulars of smoke observations and subsequent action are summarised below:—

Timed observations taken	498
Black smoke, two minutes and over in half-hour periods (includes one outside the City boundary)	46
Smoke other than black and causing nuisance	3
Black smoke under two minutes	159
Total amount of black smoke observed in minutes	658.5
Average amount of black smoke observed (in minutes) per observation revealing smoke	3.16
Complaints received from all sources	73
Visits to works <i>re</i> smoke abatement	832
Premises where inspectors recommended plant to be altered, improved, or repaired	31
Premises where plant was found to have been altered, etc., as a result of inspector's recommendation	23
Cases reported to Committee	49
Cases cautioned or excused	19
Statutory notices served—black smoke (includes one outside the City boundary)	20

Statutory notices served—smoke other than black	3
Magistrates' order to abate nuisances obtained	1
Prosecutions for smoke nuisances and penalties imposed	6
Total amount of penalties and costs	£41 5s.
Statutory notices expiring without further action.. .. .	14
Approximate numbers of industrial chimneys in the area	1,375

Cases reported to Committee—Causes of emissions:

Bad firing	29
Insufficient boiler plant	10
Unskilled firemen	4
Structural defects in plant	3
Unsuitable fuel	1
Bad firing and unsuitable fuel	1
Fireman having other duties to perform.. .. .	1

Atmospheric Pollution.

The extent of atmospheric pollution in the City is ascertained approximately by apparatus designed to collect or record evidence of the three main types of pollution produced in the combustion of fuels.

This pollution consists of smoke, as suspended matter; ash, in the form of particles of mineral matter, and sulphur dioxide, a gas which is discharged into the atmosphere when coal is burnt.

For many years the Health Committee has maintained 7 deposit gauges and 3 sulphur estimation appliances erected in various districts of the City for purposes of atmospheric investigation. For comparison a station was established more recently at Knowle House, Handforth, in a rural environment about 9 miles south of the City centre. The deposit gauges are most effective for sampling ash and other particles, the majority of which fall relatively near to the place of origin; reference is made later to the means by which smoke pollution is estimated.

The results shown on the accompanying tabular statement revealed that slight increases in deposited matter occurred at the Withington and Monsall station. At the remaining stations there were slight decreases, with the exception of Philips Park, where an appreciable increase over the previous year was recorded; the increase was due mainly to insoluble deposit, which usually falls near to the source of origin. Large industrial premises are situated within less than $\frac{1}{2}$ mile of this station, including a large power station where extensive reconstruction has occurred and a colliery at which demolition of surface plant and buildings has taken place in connection with a modernisation scheme.

Other possible sources of grit pollution are an engineering works where structural alterations are proceeding and a large gas works where a considerable quantity of coke is stored.

Particulars of the results from the various recording stations are shown in the following table:—

Deposited Atmospheric Pollution (Tons per square mile).

MONTHLY AVERAGES.

Station	Rainfall (inches)		Insoluble Matter		Soluble Matter		Total Solids	
	1949	1948	1949	1948	1949	1948	1949	1948
Baguley	2.4	2.8	4.07	6.48	5.36	5.41	9.43	11.89
Booth Hall	2.7	2.8	7.78	7.35	5.80	6.55	13.58	13.90
Heaton Park ..	2.9	3.0	9.22	10.42	6.16	7.24	15.38	17.66
Monsall	2.4	2.8	12.61	10.30	7.88	8.69	20.49	18.99
Philips Park .. .	2.5	3.1	41.34	27.04	12.29	12.01	53.63	39.05
Rusholme	2.4	2.9	11.42	10.24	6.66	7.75	18.08	17.99
Withington	2.5	2.6	8.16	7.08	5.38	6.02	13.54	13.10
All Gauges	2.6	2.9	13.51	11.27	7.08	7.69	20.59	18.94

Station at Knowle House, Handforth.

	Rainfall (inches)		Insoluble Matter		Soluble Matter		Total solids	
	1949	1948	1949	1948	1949	1948	1949	1948
Knowle House ..	2.4	2.7	3.27	4.05	4.69	5.22	7.96	9.27

Sulphur Pollution.

(Measurements by Lead Peroxide Method.)

Weight in milligrammes SO₃ per 100 square centimetres exposed surface per day.

Monsall		Rusholme		Withington	
1949	1948	1949	1948	1949	1948
5.02	4.92	2.89	2.94	1.68	2.04

Smoke Pollution Measurement.

The measurement of smoke in the atmosphere is effected by means of filtering apparatus installed at the Public Analyst's laboratory at Rusholme, approximately 1½ miles south east of the Town Hall in the City centre.

The measurement of sulphur dioxide, by the volumetric method, is combined with smoke measurement at Rusholme and the results give a fair indication of the daily amounts of smoke and sulphur dioxide in the atmosphere in that locality.

The Public Analyst reports monthly upon the daily mean concentrations; smoke in milligrams per cubic centimetre and sulphur dioxide in parts per million.

Smoke contains about 14 per cent. by weight of tarry matter and 71 per cent. of other combustible material and is produced largely by incomplete combustion of coal; the amount of sulphur dioxide emitted from chimneys is generally proportionate to the amount of coal burnt. Dr. Dobson, Department of Scientific and Industrial Research, has stated that the maximum concentration of sulphur dioxide occurring in towns is about two volumes of sulphur dioxide per million volumes of air; he adds that as little as $\frac{1}{2}$ volume of sulphur dioxide per million volumes of air is injurious to plant life.

In an exhaustive survey of atmospheric pollution carried out at Leicester about five years ago, it was found that the mean concentration of smoke in the City centre, in the summer months, was 0.17 milligrams, and in winter 0.41 milligrams per cubic metre. The comparative figures at Rusholme, compiled from the accompanying graph of records for 1949 are:—0.15 milligrams in summer and 0.25 milligrams per cubic metre in winter.

It is recognised that industrial smoke in the atmosphere remains fairly constant throughout the year by reason of uniform operation of plant, whereas smoke emitted from domestic and central heating appliances shows a marked reduction in the summer months, when heating arrangements are not in general use. At Rusholme the mean daily smoke concentration reached the lowest points in June and July, rose somewhat in August, whilst a sharp rise occurred in October to a level which persisted until the end of the year. These factors indicate that atmospheric smoke in the Rusholme district arises mainly from domestic sources and central heating installations in the larger buildings in the area.

The highest concentration of sulphur dioxide was recorded on the 19th November, a foggy day; the amount of smoke recorded on the same day, 0.685 milligrams per cubic centimetre, was the highest daily concentration recorded during the month.

An accompanying graph shows the monthly mean suspended matter at Rusholme, for comparative purposes the monthly mean suspended matter at Kew Observatory in 1943-44 is shown on the same graph.

The latter information has been extracted from the 26th Report of the Department of Scientific and Industrial Research on the Investigation of Atmospheric Pollution.

Another graph shows sulphur dioxide concentration at Rusholme; as this gas necessarily arises from the combustion of coal, the variations in concentration give an indication of fluctuations in coal consumption in the locality during the year.

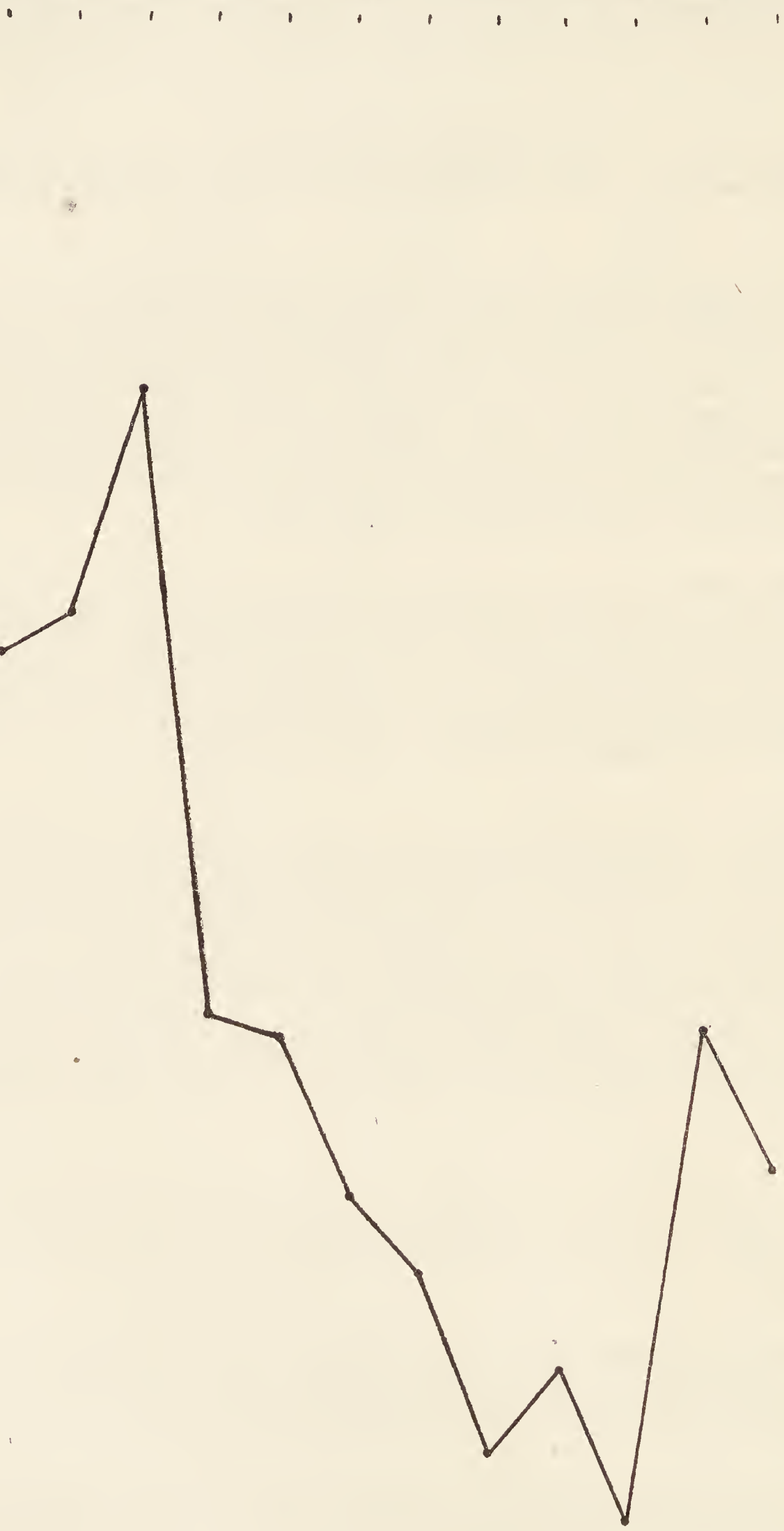
YEARLY CYCLE OF SULPHUR DIOXIDE BY THE VOLUMETRIC METHOD, 1949

Monthly Mean Concentration at RUSHOLME in volumes of SO₂ per million

JAN. FEB. MAR. APL. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.

SO₂ : VOLUMES PER MILLION

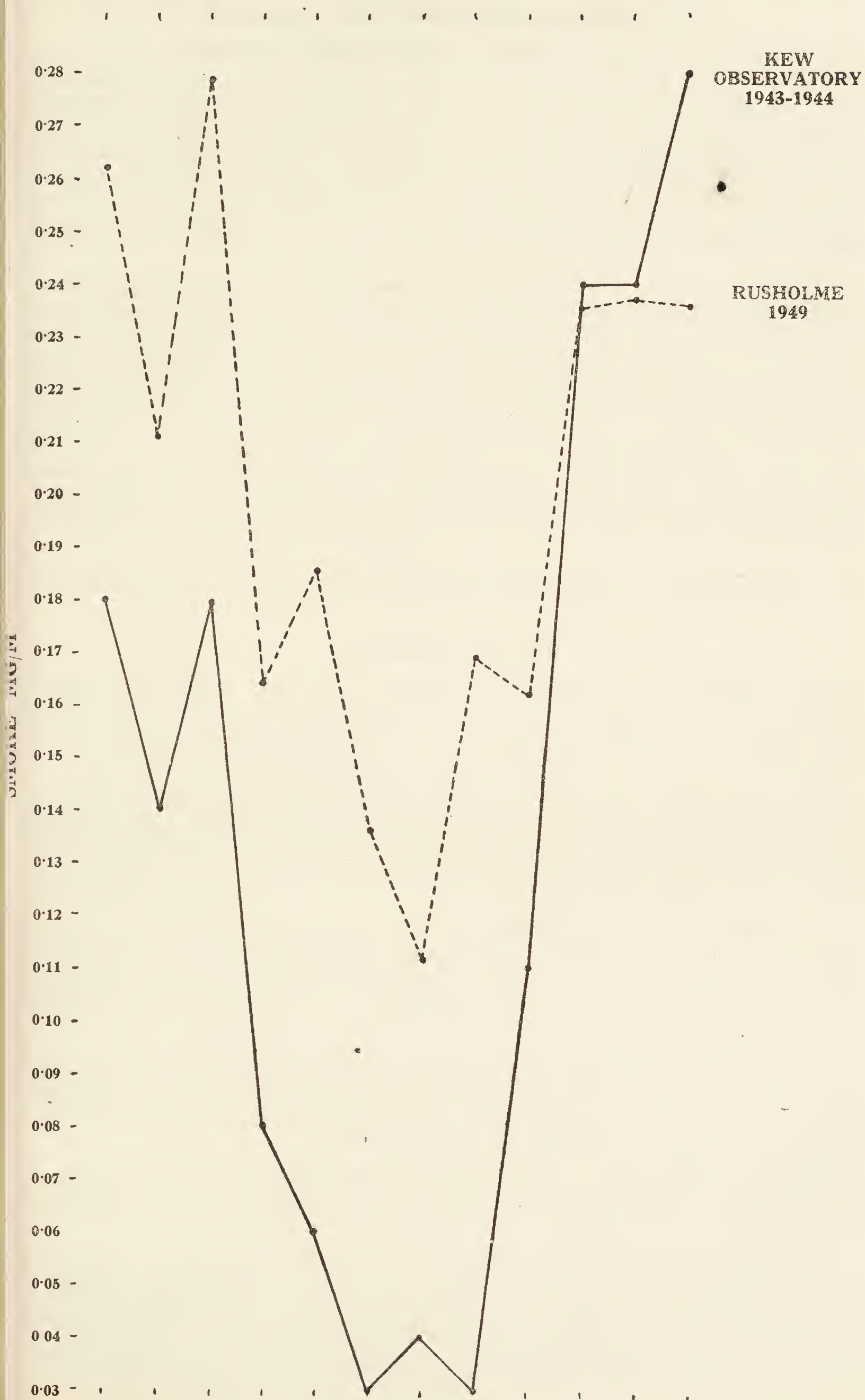
0.28 -
0.27 -
0.26 -
0.25 -
0.24 -
0.23 -
0.22 -
0.21 -
0.20 -
0.19 -
0.18 -
0.17 -
0.16 -
0.15 -
0.14 -
0.13 -
0.12 -
0.11 -
0.10 -
0.09 -
0.08 -
0.07 -
0.06 -
0.05 -
0.04 -
0.03 -



EARLY CYCLE OF SUSPENDED IMPURITY (SMOKE) AT RUSHOLME, 1949

Monthly Mean Concentration in Milligrams per Cubic Metre

JAN. FEB. MAR. APL. MAY JUNE JULY AUG. SEP. OCT. NOV. DEC.



Manchester Corporation Act, 1946, Section 36.

Prevention of Smoke from Industrial Furnaces.

The provisions of Section 36 of the Act apply to newly installed furnaces for steam raising, or for any manufacturing or trade purpose and are designed to ensure that such furnaces shall, so far as practicable, be capable of being operated continuously without emitting smoke. Although prior approval of installations is not obligatory under the Section, it contains provisions whereby plans and particulars of proposed furnaces may be submitted to the Corporation for approval; in a few cases industrialists sought and obtained such formal approval before installations were made.

In the generality of cases where new furnace installations are projected, industrialists, architects or consulting engineers communicate informally with the Department; the requirements of the Section are discussed and where necessary the proposals are amended so as to ensure that installations are in conformity with the provisions of the Act. Industrialists in the City continue to meet their obligations in this matter in a spirit of ready co-operation with the Department.

Certain new installations, i.e., furnaces used for central heating by hot water only, are outside the scope of the Section; in those instances where such installations come to the notice of the Department the advice given usually results in the achievement of smokeless operations.

A clause designed to bring these installations under control has been inserted in the Manchester Corporation Bill now being promoted.

Effluvium Nuisance.

The investigation of complaints relating to effluvium or dust from trade premises other than offensive trades, involved 604 visits to ascertain the source of offence and to determine whether or not the best practicable means were being taken to prevent or counteract the effect of the dust or effluvium.

Several complaints were concerned with dust produced by a long established brick crushing plant and mortar mill, but insufficient evidence was available to justify action under the relevant provisions of the Public Health Act. The circumstances also received consideration by the City Surveyor's Department from the Town Planning aspect.

In another case fumes emitted from a paint and varnish works gave rise to complaints; upon investigation it was found that resinous vapours were being discharged at a relatively low level. Remedial measures included treatment of the fumes by condensation and on subsequent visits satisfactory conditions were reported.

A complaint about the discharge of disagreeable fumes from a large industrial undertaking was found to have arisen in consequence of disrepair of an exhaust duct from a cellulose spraying plant; after the necessary repair had been effected, there was no further cause for complaint.

Burning of trade refuse, including waste rubber, formed the subject of many complaints and in these cases representations to the persons responsible resulted in a cessation of the practice.

A complaint relating to intermittant smells of a "phosphorus" nature in office premises in a central district necessitated extensive investigation, including drainage tests, before the source was traced to a gas escape outside the premises, where the smell was not evident. In this case the escaping gas had lost much of its characteristic smell in passing through the ground beneath the highway and coal gas was not suspected.

Offensive Trades.

Offensive trades, as defined in the Public Health Act, are carried on at 67 premises in the City and were conducted without giving rise to complaint from the public.

In the course of routine inspections, conditions likely to give rise to effluvium nuisance were disclosed at two registered premises and were remedied on verbal intimation to the management by the inspectors.

Some of the established trades are subject to a limited period of registration in the City and registration in these cases was renewed on report that the trades had been conducted satisfactorily.

One registered trade, that of pickle and sauce manufacturer, was discontinued and the premises of a fish curer and pickle manufacturer were newly registered during the year.

Co-operation is maintained with the City Surveyor's Department concerning applications to establish trades of this character in areas subject to planning schemes within the provisions of the Town and Country Planning Act.

Particulars of the 67 registered trades carried on in the City are as follows:—

Blood albumen maker	1
Bone manure and size manufacturer	1
Fat melter	1
Fish curers	2
Fish curer and pickle manufacturer	1
Gut scrapers	3
Oil distillers	2
Pickle and sauce manufacturers	7
Rag and bone dealers	22
Rubber paste or solution spreaders	8
Rubber substitute manufacturers	3
Size manufacturer	1
Soap boilers	4
Tallow melters	2
Tanners	3
Tripe boilers	6

Factories.

1. Inspections of mechanical and non-mechanical factories, etc., under the Factories Act, 1937, are shown in the following table:—

Premises	Number on register	Inspections	Written notices	Occupiers prosecuted
Factories (without mechanical power)	1,256	287	2	Nil
Factories (with mechanical power) ..	5,370	2,652	29	Nil
Building operation sites	11	25	Nil	Nil
Total	6,637	2,964	31	Nil

2. Defects found are shown below :—

Particulars	Defects				Number of cases in which prosecutions were instituted
	Found	Remedied	Referred to H.M. Inspector	By H.M. Inspector	
Want of cleanliness (Section 1)	6	4	2	4	—
Overcrowding (Section 2)	—	—	—	—	—
Unreasonable temperature (Section 3)	—	—	—	—	—
Inadequate ventilation (Section 4) ..	2	1	1	1	—
Ineffective drainage of floors (Section 6)	—	—	—	—	—
Sanitary conveniences (Section 7)—					
(a) Insufficient	22	15*	—	10	—
(b) Unsuitable or defective	273	184†	—	132	—
(c) Not separate for sexes	11	10‡	—	5	—
Other offences against the Act, (not including offences relating to Outwork)	14	1	12	—	—
Totals	328	215	15	152	—

* Includes 4 from previous year.

† Includes 13 from previous year.

‡ Includes 1 from previous year.

Factory Outworkers.

The conditions under which specified classes of outwork are carried on in the workers' homes are supervised by two female sanitary inspectors under the provisions contained in the Factories Act and the Public Health Act; these provisions relate to the employment of persons in unwholesome premises and the prohibition of homework in premises in which notifiable disease exists.

Notifications and investigations show that 378 firms in Manchester now employ 2,111 outworkers, of whom 1,421 are resident in the City, the remainder being in districts administered by other authorities. Particulars were forwarded to the Councils of these districts in accordance with the provisions of the Factories Act.

Although 26 firms discontinued the employment of outworkers for various reasons during the year, the totals of outworkers and firms employing them continue to increase.

An improved standard was noted in the premises visited and in general satisfactory conditions were found, but dirty or other unwholesome conditions were disclosed at 18 homes. In 4 of these cases homework was discontinued and in the remainder the unsatisfactory conditions were remedied on verbal intimations by the inspectors.

Sanitary defects found at 7 other premises were remedied as a result of informal and statutory procedure.

In 6 cases in which notifiable disease occurred in outworkers' homes, disinfection of homework and material, etc., was effected before return to the factory and homework was suspended until medical "clearance" certificates were issued.

Investigations by the inspectors disclosed that 60 employers had omitted to keep lists of outworkers in the prescribed form. 56 of the firms concerned had only recently commenced to employ outworkers and ascribed the omission to ignorance of the requirements; in these cases and 4 others the transgressions were rectified after informal intimation to the management.

Of the 1,421 outworkers in the City, 1,194 are engaged in making various articles of wearing apparel; other classes of work include soft furnishings, stuffed toys, lamp shades, and umbrellas.

Shops Acts and Employment of Young Persons Acts.

In the enforcement of the provisions of the Acts, Orders, and Regulations, the district sanitary inspectors made 4,260 visits and inspections which were concerned mainly with statutory requirements as to sanitary conveniences and washing facilities, heating and ventilation of shops, hours of employment of young persons, and assistants' weekly half-holidays.

The provisions respecting the closing of shops in the evenings and on Sundays are dealt with by the Chief Constable.

In 26 cases, infringements of Section 10 of the 1934 Act were revealed; informal intimations were sent to the occupiers with regard to unsatisfactory sanitary accommodation and washing facilities and the necessary remedial action was effected as a result.

The circumstances connected with the employment of young persons during prohibited hours of the night by a wholesale newspaper distributor, were investigated following a complaint. It was found that the hours of employment included periods between 3 a.m. and 6 a.m.; the management had not considered that the nature of the employment was regulated by statute but, upon representations being made to them, night employment of young persons was discontinued.

The requirement of weekly half-holidays for shop assistants was found to be observed closely and no complaint was received in this regard during the year.

In 156 shops, prescribed forms required under the Acts were not exhibited or were incorrectly inscribed; in every case an informal intimation resulted in the omission being rectified.

Under the provisions of the Shops Act, 1912, orders fixing the day of the weekly half-holiday of 6 classes of shops are operative in the City; in several instances it was necessary to remind occupiers of orders relating to particular trades and the transgressions did not recur. The assistants' weekly half-holidays were not involved in these cases.

Prescribed forms of notice were received from the management of 2 cinemas, electing to apply the provisions of the Shops Acts in lieu of the Young Persons Employment Act, 1938, to all young persons employed at the cinemas.

The final report of the Gower Committee appointed by the Home Office to enquire into the administration and enforcement of statutory provisions relating to the health, welfare and safety of employed persons, including young persons, other than employments regulated under the Factory Acts, was issued during the year. It is noted with interest that with regard to representations made to the Committee on the desirability of enforcement of existing Shops Act legislation and suggested office legislation by a central inspectorate, the Committee expressed the opinion that enforcement in these matters should rest with local authorities.

Sanitary Accommodation.

The installation of additional sanitary accommodation in existing buildings is supervised by the sanitary inspectors under the provisions of the Factories, Public Health, and Shops Acts and byelaw requirements in this connection. Plans and particulars of alterations or additions to sanitary accommodation at 57 premises were received, mainly as a result of representations to owners or occupiers, regarding inadequate or unsatisfactory provision for employees in factories and other commercial buildings. Information shown on the plans related to the number and situation of conveniences, dimensions of compartments and constructional details necessary to meet the requirements of the "Suitable and sufficient" standard specified in the relevant statutes.

In many cases the accommodation comprised ranges of water-closets and urinals, with ablution arrangements in the closet ante-chambers, although the latter provision is not yet a statutory obligation in certain types of premises, including office buildings.

The district sanitary inspectors reported that the constructional plumbing and drainage work involved was completed satisfactorily in all cases.

There are 482 premises, including 427 houses or farms in the City where the sanitary accommodation consists of pail closets or privies, most of the buildings being within the outlying Wythenshawe district. The majority of the premises concerned are situated in areas where no sewer facilities are available and with few exceptions the remainder of the buildings have a short expectation of life by reason of their general condition or their situation in potential clearance or compulsory purchase areas.

There are in addition a varying number of temporary pail closets used by operatives at new building sites, etc.

Tipping of Refuse.

The disposal of refuse unsuitable for treatment at Corporation depots is carried out at 33 sites in the City. With few exceptions these tips are not adjacent to dwellings or other occupied premises and the material tipped consists of trade waste or other refuse of an innocuous character. The sites are kept under observation by the sanitary inspectors to obviate the occurrence of nuisance which may arise from the tipping of offensive or combustible matter. Control is exercised as to Town Planning provisions by the City Surveyor.

At some of the sites the lessees maintain supervision, but in those cases where the irregular incidence of tipping does not justify daily attendance, it is found that unauthorised tipping of objectionable matter takes place periodically.

Two complaints were received concerning tipping of this nature and the deposited matter was removed on representation to the lessees of the tips. In one of these cases the complainants objected to the height to which builders' rubble and similar refuse was being tipped and the matter was referred to the City Surveyor for any action open to him under Town Planning requirements. In another case the occurrence of rat infestation was referred to the rodent control officer in the Department.

During the prolonged spell of dry hot weather in the summer many complaints were received about the effluvium from a clay pit in which a deep pond is being filled up with trade refuse and material excavated from building sites. The odour was of a sulphide character and was evident near the pond and an adjacent watercourse into which the overflow from the pond discharges.

Chemical examination of the water from the pond and the watercourse revealed the presence of sulphurated hydrogen; analytical figures of the samples indicated that this constituent was produced by the bacterial reduction of sulphates in the pond, the source of which could not be traced.

A statutory notice was served on the owners of the land requiring them to abate the nuisance. Remedial action included accelerated tipping of suitable material—an average of more than 100 loads daily being maintained—and chemical treatment of the water in the pond and the outfall.

These measures were kept under close observation and resulted in the cessation of complaints and it was anticipated that the pond would be filled in completely in the early months of 1950. The pollution of the watercourse by water from the pond displaced by tipping was dealt with additionally by officers of the Lancashire Rivers Board.

The greater proportion of the household refuse in the City is disposed of by the Cleansing Department at 3 sites in outlying districts of the City by means of the controlled system of tipping. One of these sites, about 14 acres in extent, adjoins the River Mersey in south Manchester, the land being low-lying and swampy. Tipping operations are designed to provide additional land for recreative purposes in the locality and to strengthen the bank of the river, the latter operation being supervised by the City Surveyor and Engineer's Department.

Controlled tipping is carried out also at 2 other sites in the north of the City where the land is irregular in contour with deep ravines. When tipping is completed and the sites are consolidated, the surfaces are to be levelled and seeded to provide additional facilities for recreation.

Despite the large scale extent of tipping which is carried on at the 3 sites, the only complaint received was that concerned with soiled paper and dust which reached the vicinity of dwelling-houses during a gale in April. Additional mesh screening was provided and action was taken by spraying the tip surface in dry weather to prevent a recurrence of nuisance.

The district sanitary inspectors visit the tips and maintain active co-operation with the Cleansing Department to minimise the risk of objectionable conditions arising. It is noted that the systematic use of D.D.T. compounds in spray form has achieved highly successful results in the repression of flies, crickets, and beetles. The prevention of rat infestation of tips is referred to in the portion of the report dealing with the work of the Rodent Control Section of the Department.

Rag Flock Act and Regulations.

In the administration of the above Act and Regulations, 675 visits were made to premises in which rag flock is likely to be used in the manufacture of upholstery, cushions or bedding; the number of such premises in the City is now 149.

43 samples of rag flock obtained under the specified procedure were submitted to the Public Analyst, who certified that 6 of the samples did not comply with the standard of cleanliness specified in the Regulations of 1912. The offences were, however, of a minor character and were dealt with by cautioning the firms concerned, who undertook to take additional precautions to obviate further infringements.

Reference was made in the report of last year to the inception of a voluntary scheme introduced by the trade to secure an improved standard of cleanliness of filling materials pending the passing of legislation to this end. It is of interest in this connection that the analyses of samples of rag flock taken in 1949 disclose a substantial reduction of chlorine content—the existing statutory index of cleanliness—from corresponding samples in 1948, indicating that the efforts of the trade are achieving the desired results.

The need for more comprehensive legislation to secure adequate standards of filling materials in bedding, furniture, toys, etc., was expressed in the report of the Interim Departmental Committee, issued in 1946. A deputation representing manufacturers and operatives saw the Minister of Health early in 1950 and stressed the need for early implementation of the recommendations of the Departmental Committee and received an assurance that the matter would not be overlooked.

Pharmacy and Poisons Act, 1933.

The administration of the above Act and the Poisons Rules relating to the retail sale of the poisons specified in Part 2 of the Poisons List is a function of the Department. The poisons concerned are sold commonly in the form of insecticides, rodent exterminants, hair dyes, sheep dip, and household ammonia, mainly by grocers, hardware dealers, and ironmongers. Other retailers include hairdressers, herbalists, seedsmen, florists, horticultural and agricultural suppliers.

There are 1,425 listed sellers in the City, including 230 new applicants and a total of £385 ls. was received in fees during the year. The sale of these poisons was discontinued by 350 listed persons whose names were accordingly deleted from the list.

The investigation of applications, inspection of records, requirements as to labelling, etc., are carried out by the district sanitary inspectors who reported that in 39 cases labelling requirements were infringed or unauthorised sales had taken place. The retailers were cautioned in these cases and on further visits it was found that the requirements of the Act and Rules were fulfilled.

Noise Nuisance.

Manchester Corporation Act: Section 40.

The number of complaints received in connection with noise from trade premises has increased and it is evident that the powers of the Corporation regarding noise nuisance are now more widely known to the public. It is not usually appreciated, however, that the statutory action available to the Department depends upon several factors, as will be seen on perusal of the relevant provisions in the local Act, here reproduced:—

Section 40: Manchester Corporation Act, 1946.

- (2) In any proceedings under the Public Health Act, 1936, in respect of a noise nuisance occasioned in the course of any trade business or occupation it shall be a good defence for the person charged to show that he has used the best practicable means of preventing or mitigating the nuisance having regard to the cost and to other relevant circumstances.
- (3) For the purpose of this section a noise nuisance shall be deemed to exist where any person makes or continues or causes to be made or continued any excessive or unreasonable or unnecessary noise which is injurious or dangerous to health.

The complaints relate almost invariably to noise produced in trade or industrial premises which are situated in localities where industrial processes are carried on in close proximity to dwelling-houses. In general the districts concerned are areas which were developed in the pre-Town Planning period and the noise complained of is usually inseparable from the conduct of long established industrial processes.

In the investigation of the cause and effects of noise in these industrial-residential areas, it is found that most residents have become accustomed to the various industrial noises and offer no adverse comments. On the other hand, certain people who are obviously more sensitive to extraneous noise have a genuine grievance.

Some contend that they find the noise or vibration almost intolerable and request that they should be granted the tenancy of a council house in a quiet neighbourhood. The operation of slum clearance seems to be the ultimate solution to the problem of dealing adequately with many of the complaints received from residents in these congested areas.

In every case investigated, action is taken to ensure that no unnecessary noise is produced in the conduct of the trade or business concerned and a substantial measure of co-operation to this end has been displayed by industrialists, even in those cases in which no statutory action is open to the Department. The complaints relate to many kinds of noise, including that produced by steam hammers, machinery, drills, exhaust fans, traffic at food and transport depots, circular saws, refrigerator motors, music and singing, and a dance band.

In some of these cases, where noise occurred at unduly late or early hours or on Sundays, representations to the managements resulted in the timing of operations being varied, with satisfactory results to the complainants.

In one case which related to noise in a heavy industrial process concerned with vital production for export, no legal or other action was available, although the plant is in continuous operation.

Remedial action in other cases included modifications of machinery, baffling of fans, sealing up apertures in the structure of buildings, better siting of refrigerators and other appliances and in one case, the discontinuance of loud explosions at a seasonal firework display.

Some of the investigations were carried out during the night and at weekends, occasionally over lengthy periods, as the complaints referred to disturbed sleep due to noise. Many complaints proved to be trivial in character but in those cases which were well-founded, the inspectors displayed considerable resource in suggestions made to ensure that the best practicable means were taken to prevent or mitigate nuisance. In no case was it found necessary to resort to statutory procedure to secure the abatement of nuisance.

Many complaints were received about the establishment of fairs on sites in close proximity to dwelling-houses; among other matters objection was taken to the various kinds of noise produced in the operation of the fairs. The complainants referred to loss of sleep and other interference with the quiet enjoyment of their homes by reason of the noise from the fairgrounds.

Observations taken during the year revealed that in addition to crowd noises, the noise created by mechanical equipment and engines used for the generation of electricity was clearly audible in adjacent dwellings; in particular the latter noise persisted in some instances beyond midnight.

The existing powers of the Corporation as to noise nuisance, etc., were deemed inadequate to meet the situation and a clause was inserted in the new Manchester Corporation Bill seeking powers to control the siting of fairgrounds in the City.

Prohibition on Sale of Verminous Articles.

Section 37 of the Manchester Corporation Act, 1946, prohibits the sale or exposure for sale by a dealer, of any furniture, mattress, bed linen, clothing, or similar article which he knows to be infested with bugs or other vermin or by taking reasonable precautions he could have known of the infestation. Inspections of dealers premises did not reveal any contraventions of the Section and it is evident that appropriate measures are being taken in the matter by traders.

In connection with a complaint concerned with the occurrence of bug infestation in a well-kept dwelling-house, the occupier attributed the source of the infestation to a settee which he had acquired under a hire purchase agreement. When the matter was investigated, the settee, which had been purchased as a new article, was not available for inspection, having been returned to the vendors before the complaint was received in the Department. Enquiries at the place of sale failed to secure conclusive evidence to substantiate the complaint and no action could be taken under the relevant local powers. It was ascertained, however, that when furniture is returned to the vendors concerned, in consequence of default in the conditions of hire purchase agreements, the articles so returned are resold after examination and necessary overhaul. Representations were made to the firm as to the need for thorough examination of furniture in cases of this character, so as to obviate the risk of vermin infested articles being resold to the public.

This case has shown the desirability of routine visits to premises from which furniture is reissued in the circumstances mentioned, and action is being taken accordingly by the Department.

Exhumations.

District sanitary inspectors were present at 10 exhumations carried out at cemeteries in the City under licences issued by the Home Office. In 4 instances the human remains were re-interred in other graves in the same cemetery and 4 were removed to other cemeteries within or outside the City area.

In two cases in which bodies were exhumed to enable the Coroner to conduct an enquiry into the cause of death, the remains were subsequently re-interred in the original graves.

The inspectors reported that all the exhumations and arrangements for removal were conducted in accordance with the requirements of the Home Office as to the observance of due care and decency and with proper regard to public health.

Flooding of Premises.

Heavy rainfall on the 27th May caused the River Irk to overflow, giving rise to flooding of adjacent premises in the Hendham Vale area. Approximately 70 premises—mainly dwelling houses—were involved, the ground floor rooms being submerged by flood water to a depth of about 15 inches for a period of several hours.

A few of the premises have basements and in these cases the flood water was pumped out by the City Surveyor's staff who assisted also in the disposal of silted matter. The cleansing of ground floor rooms was effected by the occupiers who were supplied with disinfectant by the Health Department.

Many of the houses, which are very old, abut the river bank, the rear walls being built upon the retaining wall of the river. In one case a portion of a house collapsed into the river and it was necessary for the tenant to take temporary accommodation until the house was repaired and made safe under the supervision of the City Architect's Department.

Investigations revealed that the drainage systems and water supply to the premises were not affected by the flooding and minor structural defects which arose were remedied by the owners after informal intimations to them.

On the same day complaints were received about flooding of houses and other premises in the Blackley area; inspections disclosed that the flooding was due to the heavy rainfall having surcharged local sewers and drains serving the premises mentioned. Appropriate action was taken to deal with insanitary conditions arising from the flooding.

Registration of Hairdressers, Barbers, and Premises.

The provisions of Section 42 of the Manchester Corporation Act, 1946, with respect to the registration of hairdressers, barbers, and their trade premises were made operative during the year and registration was effected in all known cases to which the Section applies.

The Corporation have powers, in addition, to make byelaws for the purpose of securing:—

- (a) the cleanliness of any premises so registered and of the instruments, towels, materials and equipment used therein; and
- (b) the cleanliness of persons employed in such premises in regard to both themselves and their clothing.

Preliminary action has been taken towards the making of appropriate byelaws under these provisions.

Public Conveniences.

The provision of conveniences in districts where these facilities are inadequate was reviewed by the Committee with particular reference to areas where housing or other developments have taken place, and to the need for additional womens' conveniences throughout the City. After a comprehensive survey for this purpose a programme of projected extension of facilities was formulated together with priority of construction, as financial and other considerations permit.

Additional conveniences were provided near Broadhurst Park, Moston, and at Mill Lane, Northenden; the latter conveniences being a replacement, on a more central site, of conveniences in Mill Lane demolished by enemy action during the last war.

The construction of two new conveniences is well advanced on sites at the corner of Platt Lane, Rusholme, and at Brooks's Bar; this latter site is situated at the junction of several main roads, near the Stretford-Manchester boundaries and the cost of construction will be borne equally by both authorities.

Improved mechanical ventilation has been installed at both the heavily used underground conveniences in Piccadilly and several conveniences in other localities were reconditioned during the year.

The incidence of malicious damage to the structures and fittings in the conveniences is lessening somewhat but this wanton destruction of civic property and the theft of metal fittings continues to involve the expenditure of public money in repairs and replacements and reduces temporarily the efficiency of the service at the conveniences concerned. Appropriate measures are being taken to minimise this form of anti-social malpractice.

Reference is made, under the heading "Sale of Food outdoors" to the arrangements whereby free washing facilities are available, at suitably equipped conveniences, to persons engaged in the sale or distribution of food outdoors.

The provision of free hand-washing facilities for the general public was introduced experimentally at six public conveniences; liquid soap and paper towels were provided under the scheme, which is designed to encourage habits of personal cleanliness, especially after the use of a sanitary convenience. At some of the conveniences selected for the experiment no attendants are employed and some misuse of the facilities has occurred. The working of the scheme will form the subject of a report to the Committee after a reasonable period of operation.

There are now 148 conveniences under the control of the Department and particulars of the accommodation provided are shown below:—

Males.

With urinal, water-closet, washing, and parcel accommodation..	8
With urinal, water-closet, and washing accommodation	10
With urinal and water-closet accommodation	23
With urinal accommodation only	72
	<hr/>
	113
	<hr/>

Females.

With water-closet, washing, and parcel accommodation	10
With water-closet and washing accommodation	14
With water-closet accommodation only	11
	<hr/>
	35
	<hr/>
Total	148
	<hr/>

Number of Inspections and Visits.

Primary inspections of dwelling-houses under the Public Health Act, 1936	19,234	Dwelling-houses 72,977
Subsequent inspections of dwelling-houses under the Public Health Act, 1936	46,178	
Primary inspections of infected houses	1,405	
Subsequent inspections of infected houses	160	
Inspections of dwelling-houses <i>re</i> tuberculosis	282	
Other visits <i>re</i> tuberculosis	208	
Visits <i>re</i> contacts—infectious disease	629	
Visits <i>re</i> infirm persons	10	
Disinfestations and removals	11	
Verminous persons	4	
Houses-let-in-lodgings	2,275	
Common lodging-houses	99	
Tents, vans, and sheds	136	
Homes of outworkers	1,728	
Canal boats	618	
Bakehouses	1,707	
Food preparation premises	1,900	
Restaurant, etc., kitchens	1,408	
Factory canteens	159	
Hawkers of food and storage premises	2,302	
Sale of food on open sites	1,053	62,411
Shops <i>re</i> sale of food	5,439	
Markets <i>re</i> sale of food	97	
Hotels, beerhouses	299	
Slaughterhouses	42	
Visits by sampling officers to obtain samples of water for chemical and bacteriological examination	46	
Visits by sampling officers to obtain samples of food and drugs	2,913	
Visits to registered premises of artificial cream manufacturers	2	
Visits to registered premises of wholesale margarine dealers	102	
Offensive trades	174	
Observations <i>re</i> effluvium nuisances	604	
Works boiler plant <i>re</i> smoke abatement	832	
Refuse tips—Corporation	25	
Refuse tips—private	323	
Stables	358	
Piggeries	184	
Sanitary accommodation at schools	62	
Sanitary accommodation in parks	376	
Public sanitary conveniences	597	
Cesspools	6	
Land	830	
Watercourses	79	
Streets, passages, roadways and footpaths	1,615	
Exhumations	23	
Factories	2,939	
Shops <i>re</i> Shops Acts	4,260	
Hairdressers and Barbers shops <i>re</i> Manchester Corporation Act, 1946	516	
Cinemas, theatres, dance and billiard halls	107	
Churches	65	
Premises in connection with Rag Flock Act	675	
Other business premises	2,423	
Premises for testing drains	322	
Pharmacy and Poisons Act, 1933	930	
Inspections <i>re</i> works in progress—drainage inspectors	4,980	
Railway stations	67	
Sale of verminous articles	23	
Noise nuisance	168	
Miscellaneous visits	21,379	
	135,388	

SPECIAL INSPECTORS.

The following statement indicates the work done for the Medical Officer of Health by the two Special Inspectors.

Number of visits *re*—

Infectious diseases	161
Food poisoning	} 207
Food contamination	
Water supply	12
Vermin—Infested premises	43
Institutions	15
Tips	10
Nursing homes	75
Nursing agencies	12
Nuisances	14
Swimming baths	65
Export of washed rags and other materials	25
Export of food	5
Public Health exhibitions	13
Public Health lectures	2
Massage or special treatment establishments	125
Steam disinfectors	5
Ministry of Health training scheme for student sanitary inspectors	45
Miscellaneous	130
Tests of water applied at swimming baths	114
Day nurseries	15

Infectious Diseases.

An outstanding item under this heading was an outbreak of typhoid fever which was caused through infected food (contaminated by a carrier) consumed at a masonic hall outside Manchester.

The number of infected persons all of whom were hospitalised was 43 with 2 fatalities.

The number of cases in Manchester was 4, none of whom were fatal.

Over 260 contacts in Manchester who had visited the hall for meals during the suspected period were interviewed to ascertain the state of their health. A number of these gave blood, faeces, and urine specimens for examination, all of which were negative with the exception of the 4 cases noted above.

The prompt action by the Authority concerned, along with the speedy co-operation of the neighbouring Authorities, no doubt led to an early control of what might have been a very large and serious outbreak.

Recovery of the virus of Lymphocytic Choriomeningitis.

The virus of lymphocytic choriomeningitis was recovered from the brains of house mice (*mus musculus*) for the first time in this country (although it had been so obtained in the U.S.A.), as a result of a patient in a Manchester hospital being diagnosed as suffering from that disease. Some mice were obtained from the house of the patient and the brains and spleens were removed from them and dispatched to the Central Public Health Laboratory for examination with the above results.

Food Poisoning and Food Contamination.

Circular No. 46/49 of the Minister of Health, dated 24th May, 1949, requested local authorities to supply the Minister with more detailed information with respect to notifications of food poisoning under Section 17 of the Food and Drugs Act, 1938.

The Medical Officer of Health considered it opportune in the light of this circular to remind the general medical practitioners in Manchester of their responsibility to notify him of all cases of food poisoning under that Act.

More notifications of food poisoning were received in 1949 than formerly, due in the main to the kind co-operation of Dr. M. T. Parker, Director of the Public Health Laboratory Service at Monsall Hospital, Manchester, who has directed the attention of the Medical Officer of Health to cases arising as a result of his examinations of samples submitted to the laboratory.

The summary of cases occurring herewith, in the form it has been sent to the Ministry, has been included but special attention is drawn to those cases which have been found outstanding and interesting. Among these are:—

No. 1 Outbreak.

Twenty persons attended a birthday party and 13 of these consumed trifle. *Salmonella typhi-murium* organisms were isolated from the stools of 13 persons and from the trifle. Nine of the 13 persons were ill with food poisoning, 4 being hospitalised.

The probable origin of infection was that the baker who had made the trifle was found, after a faecal specimen had been obtained, to be a transient carrier of *Salmonella typhi-murium*.

Other contributory features were unsatisfactory conditions as regards cleanliness, storage and structure at the bakery premises. The weather was very warm at the time of the outbreak and poor storage facilities were present both at the bakery and the dwelling-house.

No. 2 Outbreak.

This outbreak was due to the consumption of meat pies, the agent causing the outbreak being *Salmonella aberdeen*. The total number of infected cases ascertained was 42. Of these, 21 were discovered by the laboratory investigation of Dr. Parker, of the Public Laboratory, Manchester, and investigations made by the Health Department. The other 21 were the result of information from Scotland of 20 schoolboys and 1 adult from a Manchester school on a climbing holiday being ill with food poisoning after eating the pies taken from Manchester—6 of the boys were hospitalised in Scotland. The actual number of cases ill in Manchester during the outbreak was 8, the other being in neighbouring authorities outside Manchester—4 of the outside Manchester cases were hospitalised.

The number of persons at risk must have been considerable as the meat pies were distributed amongst 12 cafe-shops in Manchester and district. It is possible that there were undiscovered cases who never consulted a doctor.

Preparation of the meat pies involved 2 separate food preparing premises, namely, a butchers and a bakery.

The suspected origin of infection or contamination of food in the outbreak may have happened or been contributed to by the following:—

1. A pie-maker at the bakery who had no illness, submitted a faecal specimen from which *Salmonella* aberdeen organisms were isolated. It may be this person was a transient carrier, or have become infected without signs of illness through eating the raw pie-meat.
2. The butcher's food preparation premises where the pie meat was prepared was unsatisfactory as regards equipment, cleanliness, and storage. Legal proceedings were taken successfully against the firm for the unsatisfactory features mentioned.
5. The weather before and at the time of the outbreak was very warm.

No. 6 Outbreak.

This was attempted murder by arsenical poisoning.

Following complaints to the Health Department of 5 persons being ill after drinking tea, the investigation indicated symptoms of metallic poisoning. The sugar which had a suspicious appearance was taken together with the tea and milk to the City Analyst and a preliminary test indicated the presence of arsenical compound in the sugar.

The police were immediately notified and a man was detained the same evening. He was subsequently sentenced at the Assizes to ten years imprisonment on a charge of attempted murder by poisoning.

Contaminated Pears.

The Medical Officer of Health was advised by various port health authorities that consignments of imported pears from Italy were contaminated with an arsenic insecticidal spray and that large quantities had been released for transportation to Manchester conditionally upon the pears being treated before sale in accordance with instructions from the Medical Officer of Health. It was found, on arrival of the fruit, to be economically and manually impracticable to deal with the pears wholesale other than by total destruction as they were wrapped in paper and packed in small wooden boxes.

A sample box of the fruit was examined and tested by the City Analyst who reported satisfactorily upon them and the pears were released for sale subject to a written undertaking from each retailer that the pears would be cleansed before sale to the public.

Insect Pests.

The Special Inspectors continued to be called upon to advise with regard to the eradication of insect pests in domestic and business premises, hospitals, and other institutions.

The walls and ceilings of the day nurseries and child welfare centres were again sprayed with D.D.T. solution as a precaution against house fly infestation.

Swimming Baths.

Indoor.

Visits of inspection to the 13 public and 6 private swimming pools were continued as a routine measure during the year. The noticeable improvement of 1948 was maintained at the Corporation baths in the application of the chemical treatment to give better filtration and purification results. The bacteriological reports of the samples submitted indicated a high degree of purity in almost every case.

A satisfactory standard was also continued at the private baths.

During the year 56 visits were made during which 50 tests were made of the swimming bath water to ascertain if the recommended standards of the Ministry of Health regarding the correct alkalinity and free residual chlorine were present in the water. Fifty samples were obtained and submitted to the Public Health Laboratory for bacteriological examination.

Outdoor.

There are 3 open air baths at present being used. One is privately owned and the other 2 pools belonging to the Corporation are situate in public parks.

The private pool is generally maintained satisfactorily and has an efficient filtration and purification plant.

The Corporation swimming pools were opened only for a short period and were not used much by the public owing to the inclement weather at the time. These pools are still operated on the "fill and empty" system and leave much to be desired.

Samples of the water for bacteriological examination were obtained on 7 occasions and tests for alkalinity and the presence of free chlorine were also carried out. The number of visits made was 9.

Export of Washed Rags, Materials, and Food.

Inspections of materials and foods is carried out as a hygienic measure properly coming within the scope of the Department and to assist business firms in attaining the standard of cleanliness and purity required by the Regulations made by the various Government and Importing Authorities in instances of export.

During the year 17 tons of washed rags and other materials for export were dealt with and certificates issued.

Inspections were made at a brewery and samples submitted for laboratory examination of beer intended for export to Venezuela before certificates were granted.

Certificates were also issued on 3 occasions after inspection for spiced foods being exported to South America.

Establishments for Massage or Special Treatment.

During 1949 there were 5 new licences and 110 renewals of licences issued to persons to carry on establishments for massage or special treatment under Part IX of Manchester Corporation Act, 1924. This was 7 licences less than those first granted and renewed in 1948. The reduced number of licences issued coincide with fewer enquiries from would-be licencees and trainees, and it appears to be indicative of the return to more normal activities following post-war rehabilitation of the members of the trades or professions concerned.

No infringements of the byelaws were found during the inspection of the establishments and there were no appeals lodged against the Corporation's decision not to grant a licence.

Summary of Cases

Food causing Outbreak	Agent causing Outbreak	Cases		Clinical Features			
		Total Noti- fied	Total ascertained	Average Incuba- tion	Main Symptoms	Severity of Illness	Duration of illness
1. Trifle	S. typhi- murium	8	13	23 hrs.	Nausea, vomiting some cases, abdominal pains, fever	Moderate	2-7 days
2. Meat pies	S. aberdeen	—	8 in Manchester 34 outside Manchester	12 hrs.	Initial feeling of influenza, diarrhoea, fever, nausea, vomiting in some cases, abdominal cramps, chills, pains in limbs, and prostration in some cases	Moderate to severe	3-7 days
3. Not known. Hen eggs suspected	S. typhi- murium	—	2 (one ill)	10 hrs.	Fever, headache, diarrhoea —patient had previous history of abdominal disorders	Mild	6 days
4. Ox tongue	Staph aureus	2	3	3-5 hrs.	Diarrhoea, vomiting and prostration in one case	Moderate	2-3 days
5. Bilberry jelly ..	Chemical zinc poisoning	—	10	Immed- iately after meal	Nausea and vomiting	Mild	3-4 hrs
6. Sugar placed in tea	Arsenic	—	5	$\frac{1}{2}$ hr. to 1 hr.	Vomiting, nausea, headache, some diarrhoea and fever	Moderate	Few days
7. Not known	S. typhi- murium	—	1	—	Patient removed to hospital with whooping cough, died after four months in hospital from (A) gastro- enteritis, (B) S. typhi-murium, (C) whooping cough. Infected in hospital—cross infection		
8. Not known. Hen or duck eggs suspected	S. thompson	—	2 (one ill)	5 hrs.	Headache, fever, followed next day by diarrhoea and abdominal pains	Moderate	6-7 days
9. Not known	S. enter- itidis	—	1	—	Patient removed to hospital with arthritis and after eight days in hospital commenced with symptoms of food poisoning—diarrhoea, fever, etc.		
10. Not known. Egg powder suspected	S. oranien- burg	—	1	24 hrs.	Vomiting, pyrexia, diarrhoea, blood and mucus in stools	Moderate	About 10 days
11. Not known	S. typhi- murium	—	3 (only one ill)	?	Vomiting and diarrhoea ..	Moderate	2 weeks in hospital
12. Not known. Fried egg suspected	S. typhi- murium	1	—	16 hrs.	Vomiting—diarrhoea and abdominal pains—also high temperature	Moderate	About 12 days
13. Not known. Duck eggs suspected	S. typhi- murium	—	1	13 hrs.	Vomiting—diarrhoea and abdominal pains—also high temperature	Moderate	2 weeks in hospital
14. Not known	S. typhi- murium	—	2	?	Vomiting—diarrhoea and abdominal pains—also high temperature	Moderate	2 weeks in hospital
15. Not known	S. typhi- murium	1	—	Hospital case	Vomiting—diarrhoea after most meals—history of gastro-enteritis	Mild	12 days in hospital
16. Not known	S. typhi- murium	1	—	Hospital case	Removed to hospital, history of gastro-enteritis and feeding trouble	Mild	3 months in hospital
17. Not known	S. enter- itidis	1 fatal	—	Hospital case	Faecal specimen positive after five weeks in hospital —patient died of "Carci- nomatosis"	—	—
18. Not known	S. typhi- murium	1	—	Hospital case	Faecal specimen positive after 10 days in hospital. Admitted to hospital for removal of leg—gangrene. Other complications—history of enteritis for five years		

Food Poisoning.

Results of Laboratory Investigations				Origin and preparation of food causing illness	Place at which food causing illness was consumed	Estimated Number at risk	Probable origin of Infection or Contamination of Food
es	Food Samples	Food Handlers	Other				
ive e (of ss)	Trifle, etc., positive	1 positive (no illness)	—	See separate report	Dwelling-house (birthday party)	13	Transient carrier possible, see separate report
ive es	Pies, etc., positive	1 positive (no illness)	—	See separate report	Dwelling-houses, cafes, etc.	400 to 500	Transient carrier possible, see separate report
ive e ly)	—	—	—	Origin of eggs unknown	Dwelling-house	6	Cause obscure
es ive	Tongue positive	2 positive swabs	—	Tongue boiled for five hours	Dwelling-house	11	Tongue kept for four days before consumption by those ill. Hand and nose swabs from one handler had heavy growth of <i>S. aureus</i>
Jelly was found to contain 200 p.p.m. of zinc	—	—	—	Bilberry juice stored over-night in a zinc bath and later made into jelly by adding powder- ed gelatine and sugar	School	100	Action of bilberry juice on the zinc container
—	—	—	—	—	Dwelling-house	5	Arsenic mixed with sugar—with malicious intent. Man convicted and received 10 years imprisonment
—	—	—	—	—	—	—	—
ive	—	3 negative	—	Egg sandwiches made from hen and duck eggs	Dwelling-house	5	Unable to ascertain the source of the eggs
—	—	—	—	—	—	—	Not known
l	1	8 negative	—	Egg powder made into cake sus- pected	Dwelling-house	1	Cause not certain—the organism found in the egg powder was later proved to be <i>S. cholerae-suis</i> var. <i>kunzendorf</i> and quite distinct from that found in the faecal specimens
3 tive	—	2 positive	—	Unknown	Dwelling-house	3	Not known
l tive	—	—	—	Imported egg suspected	—	—	Unable to ascertain cause. Egg suspected but not traced
l tive	—	—	—	Duck eggs (fried) suspected	Cafe	1	Unable to ascertain cause. Egg suspected but not traced
l tive	—	6 negative	1 mouse negative	Unknown	Dwelling-house	8	Not known
l tive	—	—	—	Unknown	Dwelling-house	1	Not known, may have been infected in hospital
l tive	—	—	—	Unknown	—	—	Not known, probably cross infection in hospital
—	—	—	—	—	—	—	Infection in hospital probable
—	—	—	—	—	—	—	Not known

Food causing Outbreak	Agent causing Outbreak	Cases		Clinical Features			
		Total Noti- fied	Total ascertained	Average Incuba- tion	Main Symptoms	Severity of illness	Duration of illness
19. Not known. Lunch- eon meat suspected but not proved	S. typhi- murium	—	2	6-7 hrs.	Vomiting—diarrhoea and pyrexia	Moderate	8 days
20. Not known	S. typhi- murium	3	19 (four fatal)	Hospital cases	Diarrhoea and vomiting in some cases. 17 infants of the hospital receiving treat- ment generally for illnesses and disorders of the gastro- intestinal tract. Two of the cases were members of the nursing staff	Mild to moderate (Some 1,000 faecal specimens from in- fants, nursing staff, or food handlers were obtained and examined at the Public Health Laboratory)	Short duration
21. Not known	S. typhi- murium	1	—	Hospital case	Illness commenced in hospital after tonsillectomy	Mild	Short duration
22. Not known	S. typhi- murium	1	—	Hospital case	Illness commenced in hospital whilst receiving other treat- ment	—	—
23. Not known	S. typhi- murium	1	—	8 hrs.	Abdominal pains, diarrhoea, vomiting	Moderate	7 days
24. Not known	S. typhi- murium	6	Notified during year from Children's Hospital (positive cases) suspected to have been infected in hospital.				

SUSPECTED FOOD POISONING CASES—NO AGENT

25. Not known	Not known	—	11	10-14 hrs.	Diarrhoea, vomiting in some cases	Mild	1-2 days
26. Not known	Not known	1	—	2 hrs.	Urticaria only—no other ill- ness	Mild	1 day
27. Not known	Not known	1	—	8 hrs.	Diarrhoea and vomiting ..	Mild	Few hrs.
28. Not known. Meat and potatoe pie suspected	Not known	—	1	10 hrs.	Nausea, vomiting, abdominal pain	Moderate	2-3 days
29. Not known. Cottage pie suspected	Not known	—	90	4-10 hrs.	Diarrhoea (some), vomiting (some)	Mild	1-1 day
30. Not known. Cold roast lamb sus- pected	Not known	—	34	9-14 hrs.	Diarrhoea, nausea, and abdominal pains	Mild	24 hrs.
31. Not known	See notes re faecal specimens	1	2	36-40 hrs.	Acute abdominal pains, diarr- hoea, pyrexia	Moderate	2-3 days
32. Not known. Cow- heel and gravy suspected	—	1	—	4 hrs.	Abdominal pain, diarrhoea ..	Moderate	2-3 days
33. Not known	Not known	—	40	7-8 hrs.	Diarrhoea in some, diarrhoea and vomiting in others— Vomiting only in some	Mild	12 hrs.
34. Not known	Not known	—	90	Few hours to 3 days	Chiefly nausea—some vomit- ing—a few diarrhoea	Mild	A few hrs. to 2-3 days
35. Not known. Cold pork suspected	Not known	—	58	12-14 hrs.	Abdominal pain—some vomit- ing—some diarrhoea	Mild	6-12 hrs.
36. Not known. Roast beef suspected	Not known	—	50	12-16 hrs.	Diarrhoea, abdominal pains, vomiting in some cases	Mild	5-6 hrs.
37. Not known. Boiled beef suspected	Not known	—	100	8-14 hrs.	Abdominal pains, nausea, vomiting in some and diarrhoea in some	Mild	1-2 days
38. Not known	Not known	1	—	3 hrs.	Diarrhoea and nausea ..	Mild	Few hrs.
39. Not known	Not known	1	—	5-7 hrs.	Urticarial rash—nausea ..	Mild	Few hrs.
40. Not known	Not known	1	—	12 hrs.	Diarrhoea and vomiting ..	Mild	1-2 days
41. Not known	Not known	1	—	6-8 hrs.	Abdominal pains—diarrhoea	Mild	Few hrs.

Results of Laboratory Investigations			Origin and preparation of food causing illness	Place at which food causing illness was consumed	Estimated Number at risk	Probable origin of Infection or Contamination of Food
Food Samples	Food Handlers	Other				
—	—	—	Not ascertained	Dwelling-house	8	Not ascertained or proved
10 negative	See below	—	Not known	Babies Hospital	250	Cross infection contributory cause of the illness spreading
—	—	—	—	—	—	Probably cross infection in hospital
—	—	—	—	Hospital	—	Not known
—	3 negative	—	Duck egg suspected	Home	—	Duck egg suspected—unable to trace source of egg
—	—	—	—	—	—	—

IDENTIFIED IN FOOD, FAECES, OR OTHER SAMPLES.

4 negative	12 negative	—	Minced beef made into beef steak pudding and pota- toe pie suspected	Canteen	160	Five days interval before consumption. Cooked one day before eating. Meat said to be tainted at last meal. Unsatisfactory conditions in kitchen and food preparation premises
—	—	—	None known	Dwelling-house	1	Rash only—not true food poisoning
—	—	—	None known	Dwelling-house	1	Patient aged and subject to gastro- intestinal disorders
—	2 negative	Vomit negative	Boiled beef, liver, and mixed vegetables	Dwelling-house	3	Pre-heating of food, toxins suspected
—	10 negative	4 negative	Tinned steak and vegetables boiled	School	380	Not known
—	27 negative	—	—	School	271	Pre-heating of food two days before consumption
<p>Specimens from both persons taken with the following results:— P.H. Laboratory—a scanty growth of <i>S. paratyphi</i> B Gen. Ref. Laboratory—the cultures belong to an untypable Vi strain</p>						
—	—	4 negative	Boiled cow-heel	Dwelling-house	1	Food pre-heated and re-heated for two days prior to consumption
—	17 negative	—	Roast lamb suspected	School canteen	320	Meat after covering was allowed to stand in kitchen for 24 hrs. and cool down gradually
—	—	—	None indicated	School	600	The symptoms of Epidemic Nausea and vomiting indicated a virus or group of viruses of unknown origin
—	—	—	Roast pork pre- heated one day before consump- tion	School	150	Whilst the symptoms of illness may have been caused by organisms or toxins, the explosive nature of the illness and the season may be indicative of allergic reaction to unfamiliar food by the infant scholars
—	3 negative	—	Roast beef pre- heated one day be- fore consumption	Canteen	170	Pre-heating of meat and cooling over night in unsatisfactory surroundings and later re-heating
—	3 negative	2 water negative	Boiled beef pre- heated one day be- fore consumption	Canteen	350	Pre-heating of meat and cooling over night and later re-heating
—	—	—	None indicated	Dwelling-house	1	No confirmation of specific organisms— no faecal specimens obtainable
—	—	—	None indicated	Dwelling-house	1	No confirmation of specific organisms— no faecal specimens obtainable
—	—	—	None indicated	Dwelling-house	1	No confirmation of specific organisms— no faecal specimens obtainable
—	—	—	None indicated	Dwelling-house	1	No confirmation of specific organisms— no faecal specimens obtainable

MANCHESTER AND DISTRICT REGIONAL SMOKE ABATEMENT COMMITTEE.

By the Honorary Secretary, C. Metcalfe Brown, M.D., D.P.H.,
Barrister-at-Law.

The Manchester and District Regional Smoke Abatement Committee is an association of local authorities in South Lancashire and North Cheshire and acts in an advisory and technical capacity for the benefit of member local authorities in connection with all forms of atmospheric pollution. 80 local authorities are members of the Committee, covering an area within 15 miles radius of the City of Manchester, which roughly corresponds with the area of the South Lancashire and North Cheshire Advisory Planning Committee.

The Regional Smoke Abatement Committee functions in close co-operation with the Advisory Planning Committee and with other Regional Smoke Abatement Committees and Councils. It is also a member of the National Smoke Abatement Society, a voluntary organisation of industrial concerns, local authorities and private individuals which carries on smoke abatement, propaganda over a national field.

Co-operation between the Regional Advisory Smoke Abatement Committees and Councils has already been brought closer by a joint meeting which was held at Wolverhampton and was attended by representatives of the Manchester and District Committee, West Lancashire, West Riding of Yorkshire, the Midlands, Bristol area, Greater London and the Sheffield and Rotherham Statutory Committee. The success of this joint meeting has called for a further meeting to be held during the coming year at Sheffield, when the opportunity will be taken to discuss problems of mutual interest.

One of the decisions reached at the Wolverhampton meeting was the need for a revision of the syllabus for the Smoke Inspector's Examination of the Royal Sanitary Institute. Several discussions have taken place during the past 12 months with representatives of other Regional Smoke Abatement Committees, and an improved syllabus of a higher standard has been drafted jointly, which it is intended to submit to the Royal Sanitary Institute for consideration in due course.

Education in the abatement of smoke and other forms of atmospheric pollution is one of the Committee's principal functions and has been actively pursued in many ways during the period under review. As there has been a shortage of trained lecturers in smoke abatement the Committee made arrangements with Mr. S. N. Duguid, B.SC.TECH., M.INST.F., to train a panel of lecturers comprising persons with the necessary technical knowledge, in methods of instruction based on the syllabuses of the City and Guild of London Institute. There were a large number of applications to join the special course which was commenced, but only 18 applicants were considered suitable for training.

At the conclusion of the course, 11 persons were certified as competent to organise and conduct courses, and 3 persons as competent to assist in organisation and lecturing.

Many requests have since been received for the services of these lecturers, and the Regional Smoke Abatement Committee have followed up this arrangement by organising courses for boiler firemen and others in various towns in the North-West region, when the services of the panel of lecturers have been found to be invaluable in conducting courses and giving lectures.

It has been found most essential to maintain a link with the Ministry of Fuel and Power as regards education and smoke abatement and Mr. Chas. Hay, Assistant Secretary was co-opted on the Ministry's Regional Education and Fuel Efficiency Committee for that purpose and has attended quarterly meetings of the Committee. As a result, a certain amount of overlapping in arrangements for organisation of courses has been avoided and standardisation in training more readily achieved.

In public education on smoke abatement, the assistant secretary has given a number of talks to women's organisations and other bodies as a result of requests received.

The honorary secretary was approached by the Medical Officer of Health of the City of Dublin, Eire, for assistance in training sanitary inspectors in smoke inspection and smoke abatement. Arrangements were made for comprehensive training over a period of three weeks and two Dublin inspectors attended lectures and practical work in Manchester. In addition they spent a large part of their time in gaining experience in other towns in the Region and the help and co-operation in this connection of the Medical Officers of Health of Bolton, Oldham, Stretford and Wigan is gratefully acknowledged.

The honorary secretary has continued to deal with many enquiries for assistance by member authorities during the period under review. Some of these enquiries concerned particular technical problems at factories and other industrial undertakings where smoke emissions had occurred for a variety of causes.

Other requests for assistance have related to interpretation and action under the smoke abatement provisions of public health legislation as well as the submission of bye-laws for confirmation by the Ministry of Health. Advice has also been given with regard to domestic smoke problems and on cases of atmospheric pollution other than by smoke. A request by a group of local authorities in the North-East of England for advice in forming an Advisory Committee on Atmospheric Pollution was recently dealt with satisfactorily.

Perhaps the most important task yet undertaken by the Manchester and District Regional Smoke Abatement Committee is a large-scale investigation of atmospheric pollution which was commenced in 1948. The Committee was first approached on this matter by a group of member authorities in South-East Lancashire and North-East Cheshire who had become aware of two projected large industrial developments in the Carrington-Partington area of Cheshire. In this area which is about $7\frac{1}{2}$ miles south-west of Manchester, there is in course of erection a power station with an ultimate capacity of 400,000 kilowatts.

The adjoining local authorities were concerned at the potentialities of nuisance by sulphurous gases from the power station and by gases from the industrial plant. They made representations to the Electricity Authority, in which they were joined by the Manchester and District Regional Smoke Abatement Committee, with regard to the power station and steps necessary to prevent atmospheric pollution from this source.

It was officially disclosed that the power station will incorporate electrostatic precipitation, but that circumstances do not warrant the installation of a gas washing plant initially, though provision will be made in construction so that plant can be installed in the future if evidence is produced as to the need.

In order to produce evidence that deleterious effects might occur, particularly as a result of operation of the power station, the interested local authorities requested the Manchester and District Regional Smoke Abatement Committee to undertake observations on atmospheric pollution in the area so as to ascertain the pollution level and nature before and after operation of the industrial developments concerned.

The local authorities are the Boroughs of Sale and Stretford, the Urban District Councils of Irlam, Hale, Urmston, and the Rural District Council of Bucklow. A Technical Committee comprising representatives of these Councils was accordingly formed to direct the investigation, in which the Regional Smoke Abatement Committee act as agents and recharge the costs to the local authorities involved. An extensive survey of sites in the area was made, but due to difficulties in obtaining apparatus, observations did not commence until August, 1948; 22 lead peroxide apparatuses for estimating atmospheric sulphur and 6 deposit gauges were originally proposed to be sited on a "grid" principle over an area of approximately 36 square miles round the power station and industrial plant.

The apparatus, which was installed initially, has been gradually added to, and there are at present in operation 21 lead peroxide apparatus and 6 deposit gauges.

Concurrent interest was shown by one of the participating local authorities because of persistent nuisance from tar distilling plant and other works in their area and the observations being undertaken are intended to be of assistance in dealing with this problem also.

The area concerned is partly industrialised, partly residential and partly rural in character. Widely differing types of sites are in use, consisting of farms, sewage works, public parks, public buildings, schools, gas works, an airport, and an existing power station. As regards the latter site, excellent co-operation has been shown by the North-West Electricity Board, who agreed to apparatus being installed and undertook to perform the necessary analyses. The whole of the analytical work and maintenance of apparatus is, with this exception, being undertaken by the Manchester and District Regional Smoke Abatement Committee.

Considerable interest in the investigation is being shown by farmers in rural parts of the area. The results of observations during the past 12 months are shown in tables which accompany this report, but they have not as yet any true significance, as it is intended that the investigation shall continue for at least five years.

The honorary secretary was approached recently by a very large engineering firm in the Trafford Park district with regard to a problem arising from smoke and sulphurous gases alleged to be drifting into their premises from other works, including a viscose rayon plant. This firm is one of the largest employers of labour in the country, and concern was expressed at the effect on the health of the workers as well as on certain materials used in manufacturing processes.

In collaboration with officials of the firm, arrangements were made to install lead peroxide apparatus and a deposit gauge at one of their works and a lead peroxide apparatus at their other works a short distance away. The installation of this apparatus has been effected as an extension of the wider Carrington-Partington scheme of investigation.

More recently a second joint scheme for investigation of atmospheric pollution is projected on a scale even larger than that in the Carrington-Partington area.

Some months ago the central co-ordinating body for the investigation of atmospheric pollution—the Department of Scientific and Industrial Research, issued an appeal to all local authorities with a view to the commencement of observations on pollution or extensions of existing observations.

Largely as a result of this appeal, a number of local authorities in the South-East Lancashire area who are all members of the Regional Smoke Abatement Committee, requested the Committee to consider the possibility of a joint scheme similar to that which the Committee is operating in the Carrington-Partington area.

A meeting was held at Chadderton Town Hall and was attended by representatives of 12 local authorities and the assistant secretary of the Regional Smoke Abatement Committee.

It was decided to prepare and submit a draft scheme for approval by each local authority represented, and in addition to submit the scheme to other local authorities not represented at the meeting, whose districts are contiguous.

The scheme has been prepared and submitted to 18 local authorities whose districts lie north-west, north, north-east and east of Manchester and most of the local authorities have, up to date, signified their intention of participating in the scheme, which provides for the installation of 34 lead peroxide apparatus in the various districts, by the Manchester and District Regional Smoke Abatement Committee, under agency arrangements, subject to the Committee's consent. The scheme also involves arrangements similar to the Carrington-Partington investigation and for the appointment of a Consultative Committee to direct the investigation.

When unanimity has been reached, a further meeting and a great deal of preparatory work, including survey of sites, acquisition of apparatus, etc., will be necessary, but it is hoped that a start on observations will be made during the summer of 1950.

A further investigation of far-reaching importance is now in its initial stages and concerns the effect of atmospheric pollution on plant life. It is being undertaken for three reasons :—

- (a) for the purpose of securing additional scientific data to assist or strengthen any representations which the local authorities concerned in the Carrington-Partington area may decide to make as to pollution in their areas ;
- (b) to study the effects of atmospheric pollution on pasturage mixtures used on farms in parts of Lancashire ;
- (c) as a concurrent investigation to that proposed to be commenced during 1950 in districts to the north and east, etc., of Manchester,

The Agricultural Research Council are primarily concerned with (b) and came to arrangements some time ago with the Department of Botany of Manchester University.

The Manchester and District Regional Smoke Abatement Committee also approached the University Department on behalf of local authorities interested in existing and projected investigations into atmospheric pollution.

A full-time research worker has been appointed by the University to undertake the work involved, and a financial grant has been made by the Agricultural Research Council.

The cost of apparatus is being shared by the local authorities, through the Regional Smoke Abatement Committee.

The investigation involves a study of the deleterious effects of atmospheric sulphur dioxide on plant life, and much of the work will be undertaken in the University's experimental grounds. It is intended to be on a more thorough scale than that completed some years ago by Cohen and Ruston in Leeds.

Glasshouses, with air blowers, filters and analytical apparatus have been erected, and some results of the investigation may be available towards the end of 1950.

The Manchester and District Regional Smoke Abatement Committee maintains close co-operation with the Department of Scientific and Industrial Research, as regards investigation of atmospheric pollution and is represented on the Standing Conference of Co-operating Bodies on Atmospheric Pollution.

Duties in connection with the various investigations proceeding and for the other different activities of the Committee have absorbed all the available time of the Regional Committee's secretarial staff, and it is regretted that it has not been possible to call more frequent meetings of the Committee. Nevertheless, a great deal of useful work has been accomplished and is in hand during the period under review.

Manchester and District Regional Smoke Abatement Committee.

ATMOSPHERIC POLLUTION OBSERVATIONS IN CARRINGTON-PARTINGTON AREA.

DEPOSITED MATTER by Deposit Gauge.

Results in tons per square mile.

SITE	April 1949		May 1949		June 1949		July 1949		August 1949		September 1949		October 1949		November 1949		December 1949		January 1950		February 1950		March 1950	
	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids	Rain m.m.	Total Solids
BUCKLOW R.D.—																								
Partington, Gas Works.. ..	—	—	—	—	—	—	—	—	—	—	27	17.25	68	25.07	111	22.24	107	15.19	31	16.41	105	19.25	33	16.69
Warburton, Bent Farm ..	—	—	—	—	—	—	—	—	—	—	—	—	74	11.93	116	15.98	100	10.30	29	4.41	112	8.83	31	6.09
IRLAM U.D.—																								
Sewage works	56	10.07	105	16.58	18	12.20	62	17.28	29	11.39	25	11.31	78	9.07	105	13.01	100	9.51	30	8.36	106	9.87	32	8.49
SALE M.B.—																								
Sewage Works.. . . .	62	11.91	90	18.68	20	16.48	46	14.57	39	9.46	29	14.28	67	10.37	112	19.24	105	11.90	35	7.60	104	8.82	32	8.84
STRET福德 M.B.—																								
Trafford Park, West Works ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	29	36.37
URMSTON U.D.—																								
Bowfell Road	65	20.33	117	24.63	20	12.64	43	17.03	40	12.68	28	16.25	76	13.42	127	20.35	123	18.60	46	16.70	104	14.52	33	11.90



Manchester and District Regional Smoke Abatement Committee.
 ATMOSPHERIC POLLUTION OBSERVATIONS IN CARRINGTON-PARTINGTON AREA.
 SULPHUR POLLUTION BY LEAD PEROXIDE METHOD.

Milligramme of Sulphur Trioxide per 100 square centimetres exposed surface per day.

SITE	April 1949	May 1949	June 1949	July 1949	August 1949	Sept. 1949	October 1949	Nov. 1949	Dec. 1949	January 1950	Feb. 1950	March 1950
BUCKLOW R.D.—												
Carrington, Ackers Farm ..	—	—	—	—	1.03	1.02	1.24	1.82	1.61	1.85	1.64	1.57
Carrington Moss, Moss Hall Farm	—	—	—	—	1.26	1.12	1.15	2.08	1.59	2.06	2.03	1.76
Dunham Massey, Green Lane Farm	—	—	—	—	0.84	0.93	0.97	1.69	1.29	1.72	1.64	1.42
Partington, Gas Works	2.56	3.12	2.52	3.15	2.20	3.07	2.86	6.26	2.33	3.69	4.65	4.03
Warburton, Bent Farm	—	—	—	—	0.68	0.80	1.11	1.53	1.36	1.44	1.37	1.25
ECCLES M.B.—												
Barton Airport	1.81	1.68	1.38	1.29	1.09	2.01	1.99	2.32	2.08	2.99	2.17	2.05
IRLAM U.D.—												
Princess Park	1.47	1.52	1.06	1.06	0.94	1.52	2.99	2.33	2.44	2.35	2.27	2.36
Railway View Farm	1.50	1.30	0.99	0.92	0.87	1.43	1.55	2.09	1.74	2.27	2.18	1.84
Sewage Works	1.28	1.46	1.11	1.34	0.89	1.36	1.27	1.72	1.58	1.97	1.87	1.66
Woodside Farm	0.80	0.83	0.73	0.83	0.65	0.90	0.96	1.38	1.06	1.74	1.44	1.26
SALE M.B.—												
Grammar School	1.04	1.48	1.15	0.98	1.04	1.15	1.58	2.47	1.85	2.69	2.14	1.83
Highways Depot	1.34	1.44	1.04	1.11	1.03	1.08	1.41	2.49	1.99	2.53	2.20	2.01
Sewage Works	1.15	1.46	1.06	1.21	1.00	0.93	1.39	2.48	1.86	2.30	1.94	1.83
STRET福德 M.B.—												
Victoria Park	—	1.72	1.29	1.22	1.00	1.43	1.78	2.81	2.19	2.94	2.72	2.21
West Works, Trafford Park ..	—	—	—	—	—	—	—	—	—	—	—	6.22
Mosley Road Works, Trafford Park	—	—	—	—	—	—	—	—	—	—	—	6.88
URMSTON U.D.—												
Bowfell Road	1.38	1.70	1.17	1.31	1.05	1.40	1.51	2.34	1.72	2.44	2.16	1.75
Irlam Road	1.23	1.16	0.78	0.82	0.75	1.03	1.11	1.58	1.63	2.15	2.01	1.69
Sewage Works	1.98	2.02	1.64	1.50	1.50	2.08	1.85	3.05	2.98	3.19	3.18	2.63
Westbourne Park	1.74	1.89	1.35	1.44	1.12	1.51	1.84	2.75	2.59	2.87	2.80	2.54
Barton Power Station	—	3.30	2.60	4.50	2.24	4.38	2.55	1.95	2.58	3.06	3.78	2.53
Wind direction—mainly	S. & W.	S, W, NW.	W, NW, S.	W., NW.	S., SW., W.	S. & E.	S., SE., SW.	S., SE., W.	S. & SW.	S. & E.	S., SE.	—
Mean Temperature, ° F.	49.1	51.5	58.3	62.3	61.6	60.7	52.5	43.6	41.9	39.9	40.9	—

RATS AND MICE (DESTRUCTION) ACT, 1919.**INFESTATION ORDER, 1943.****By G. H. Adcock, Cert. R.S.I.****Rodent Executive Officer.****General Account of Administration.**

The functions of the local authority under the above Act and Order are administered by the Rodent Executive Officer and staff, from premises in Joddrell Street, Manchester, 3. (Telephone No. DEA 2361/2.)

During the past year there has been no change in the legislation affecting rodent control ; that is to say, the primary responsibility for taking such steps as may be necessary and reasonably practicable for the destruction of rats and mice in or on any land, and for preventing such land from becoming infested, is still that of the " occupier."

" Land " is defined to include any buildings or erections on land, and any cellar, sewer, drain or culvert in or under land. In the case of land not occupied by a tenant or other person, " occupier " means the owner of the land.

The duties delegated by the Act and Order are carried out in co-operation with the scientific and technical staff of the Ministry of Agriculture and Fisheries, and close contact is maintained between this Section and Ministry and Regional Officers.

For purposes of national planning of Rodent Control work, the country is divided into Regional Areas, and these in turn into Workable Areas. Manchester is the nucleus of Workable Area No. 20, which includes in addition to the City itself, Salford C.B., Sale M.B., Stretford M.B., Swinton and Pendlebury M.B., Prestwich U.D., Middleton M.B., Droylsden U.D., Audenshaw U.D., Eccles M.B., and Urmston U.D.

Workable area, regional, and regional consultative committees meet at regular intervals to co-ordinate rodent control operations, and discuss technical, financial and administrative problems.

The Ministry is prepared to give local authorities financial assistance, in order to encourage rodent destruction, providing certain conditions relating to the organisation of operations, methods employed, efficient control of infestation in sewers, refuse destructors and local authority public service properties, are fulfilled.

In this City the organisation set up has been approved, and the appropriate conditions are being complied with. All phases of the work of rodent control are dealt with by this Section, except maintenance treatments of the sewers, which are carried out by the City Surveyor's Department, test baits and poison baits being laid in sewer manholes periodically.

To maintain control of infestation in surface properties, a systematic survey of all the premises in the City is carried out, in order that the presence of rats and mice may be revealed, and infestation dealt with. This survey also makes occupiers aware that a special section of the Health Department exists to deal with rodent control, and they will subsequently report to the Department any evidence they detect of the presence of rodents in their premises.

Measures adopted depend upon the estimated degree of infestation. The following classification is the one adopted by this Section :—

- (1) *Minor* : This applies to an infestation of less than 20 rats, and chiefly occurs in dwelling-houses, small shops and isolated business premises.
- (2) *Major* : This class of infestation, including anything from 20 to 200 rats, occurs in large factories, blocks of warehouses, blocks of buildings in which there are restaurants, grocers' shops and premises where food is prepared, stored, etc.
- (3) *Reservoir* : These are infestations of over 200 rats. They are present in the sewers of large cities, refuse tips and refuse destructors, slaughter-houses and sewage works.

It should be noted that this classification refers to numbers of rats, not to the density of rat population, i.e., a large number of rats can be found in small premises—a dense infestation, and this presents quite a different problem to the more difficult job of dealing with the same number of rats in premises covering several acres—a diffuse infestation.

The public sewers are an example of a reservoir infestation. Although initial and maintenance treatments have been carried out for several years, they still affect premises in their vicinity—for example, where a breakdown of the private drainage system occurs, or where defects occur in the sewers themselves. Disused sewers and drains may be found in close proximity to buildings, connected to the working sewer, and this again gives rise to infestation.

One of the reasons why a clearance of the sewers is not effected may be that many outlying districts, where rodent control work may not perhaps be carried out so systematically as in the City, discharge their sewers, by arrangement, into the City sewers. Also, many streams, open in parts and culverted in others, are connected to the public sewers.

It is of the utmost importance in all cases of infestation to locate the source, otherwise the problem cannot be dealt with effectively. Rats, and even mice, may be brought into premises in packages, straw, farm produce, etc., or may obtain entrance by means of structural defects, or infestation may be due to some hidden drain or sewer defect either outside or inside the premises. The diagnosis of the latter is no easy matter, and requires long experience and knowledge of the habits of rats. The section's major policy has always been to concentrate on locating the source of infestation if at all possible, and taking action accordingly.

In the course of this process, occupiers are often required, under the Act and Order, to undertake essential work, such as taking up floors, carrying out examinations in yards, and other work requiring as a rule the employment of a contractor, which may prove quite costly. In these cases the co-operation of the owner is usually sought, and in this City owners and agents, realising the possible damage to their property and discomfort to their tenants, have generally complied with requests to take up living-room floors, flagged or boarded, to carry out examinations and excavations in yards, cellars and water-closet chambers, in order to locate the source of infestation (usually some drainage defect) and remedy defects found. Such examinations are carried out under the supervision of the Rodent Executive Officer. Owners also assist in renewing and proofing work where rats have gained access by means of decayed or defective woodwork of cellar and basement windows, short doors, worn doorsteps, broken floor space ventilators.

The reason for re-infestation of premises is frequently not understood by occupiers, who in many cases do not like the idea of paying the cost of more than one treatment. It should be made clear that there can be no final guarantee that premises once treated will not become re-infested. A few words on the nature of the rat population may help to clarify this point.

Rats need secluded places for breeding and defence, and by nature's standards they are shrewd, suspicious creatures, night prowlers, sleeping by day in nests which they construct from any material available, incidentally doing much damage to fabrics in warehouses and shops. In towns they emerge at dusk to forage for food and water, and for breeding purposes. Once they establish themselves in any spot, they tend to regard it as their permanent home, their numbers being limited only by the capacity of the place to supply their needs. They are cannibalistic; consequently the female seeks a safe place to have a litter. This is usually in some form of cul-de-sac—as, for instance, in cases of outward burrowing from buildings to places under the public footways; from defective drains to yard and cellar surfaces, etc.—always bearing in mind that food must be available. They are prolific breeders, polygamous in habits, whereby inter-breeding takes place with the same litter directly the age of sexual maturity is reached—i.e., between 10 and 14 weeks after birth. Impregnation may take place within a few hours of a litter being born, and they have several breeding seasons during the year, this being dependent, to a large extent, on available food supply. Every kind of food, either in course of preparation or in storage or everyday use, is subject to attack by rats, and apart from that which is actually devoured, considerable quantities are otherwise ruined or contaminated. Were it not for the cannibalistic habits of the male, natural enemies, limitation of food supply, and disease amongst the colonies, the rat population would reach fantastic figures. With undisturbed breeding conditions and adequate food supply, assuming six litters of eight per year, with equal sexes, and breeding commencing at the age of sexual maturity, it is roughly calculated that the progeny of one pair of rats would be between 800 and 900.

On a national basis, the rat population is estimated to be equal to one per head of the human population, and the economic loss of food and material is calculated to be between 10s. and £1 per head of human population.

The extermination of rats goes on. It may be impossible to effect a complete clearance from a biological point of view, but it is possible to control them and reduce economic loss to a minimum. A systematic campaign must be carried on at all times, by means of a continuous “search” or survey, and the community in this way be brought to see the necessity of treating rats as the enemy of man, and to become “anti-rodent”-minded.

Other factors, as well as this one relating to the persistence and increase of rat population, contribute to infestation. Many of the business premises in the centre of the City are of very old construction and, at the time of building, the necessary “rat-proofing” methods were unknown.

Investigations to discover the cause of infestation involve inspecting large areas of property to ascertain the spread-out of the original infestation, so that measures may be taken simultaneously in all infested properties in the area.

Any suspected source of undermining of public thoroughfares or on private premises is dealt with if possible before operations begin. In some cases delay is caused through contractors not having the necessary labour available.

Obvious defects in the public sewers present no difficulty, as the City Surveyor's Department carries out the examination and completes the work under the supervision of this Section.

In the construction of new buildings or extension of existing ones, there are many points to which builders could give their attention, in connection with potential rat infestation. Both rolled steel girders and stanchions should be baffled at intervals in the web, in order to prevent the passage of rats. This is the usual way by which rats climb from the bottom to the top storey, and would be eliminated by this treatment. Other items needing attention are : gauze proofing to ornamental ventilators under shop fronts, louvre ventilators at ground level, proper sealing of pipe tracks, sealing, with cement or concrete, of abandoned drains and water-pipes entering basement walls, covering of basement windows, unused basement chimney flues, and all openings into cavity walls with rat-proof wire netting. All roof openings should receive detailed attention, boxed-in plumbing should be opened up, and in these and other ways buildings could be rendered more rat-proof.

However, no matter what the type of building may be, structural defects do develop through normal wear and tear, eventually leading to a breakdown, and infestation occurs.

Unfortunately, adequate attention is only given to these matters by occupiers when the damage has reached serious proportions.

Rats in Relation to Disease and Food.

The importance of effectively protecting food supplies is not generally recognised. Apart from the actual loss in the shape of food devoured by rats, there is also the danger of contamination of food and of disease, which may follow.

Rats and mice may harbour bacteria which, when transmitted to man, cause food poisoning.

Contamination of food by rat and mouse excrement commonly occurs in shops, in the home, and in storage and transportation.

Complaints.

As the existence of the Section becomes more and more widely known in the City, a greater number of occupiers and owners report the presence of rodents on their premises, directly they find evidence of it. Every complaint, whether it relates to rat or mouse infestation, is investigated. Naturally, some complaints are of a trivial nature, particularly those associated with mice, and where occupiers mistakenly suppose it to be the legal duty of the Corporation to effect a clearance, without their making an effort on their own behalf. Nevertheless, even these complaints afford an opportunity to explain preventive measures to occupiers and advise on food hygiene and protection.

In every case a thorough inspection of the premises, together with those adjoining, is made, so that an idea of the infestation conditions prevailing in the entire block may be obtained. This is necessary because rodents may be harbouring in one place and visiting others in search of food and water. In any case, collective action is essential if the appropriate treatment is to be put on a comprehensive basis.

The following table indicates the total number of new complaints dealt with by this Section during 1949 (1,012 more than in 1948) and the conditions found at all premises visited as a result of these complaints.

Premises Visited in Connection with Complaints, and Infestation Conditions Found.

Total number of new complaints dealt with, 1949	3,329
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Premises Visited.

Number of business premises visited in connection with complaints..	1,931
Number of dwelling-houses visited in connection with complaints ..	5,865

Total number of premises visited	7,796
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Conditions Found.

Number of premises found rat-infested	1,300
Number of premises found mouse-infested	995

Total number of premises found infested by rodents	2,295
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Total premises revealing no visible evidence of infestation at time of inspection	5,501
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All infestations are classified and placed in their respective categories. This classification is based on the visible evidence at the time of inspection, which includes such indications as smears, holes and scrapes, droppings, gnawing marks, footmarks, runways, damage to goods, undermining of surfaces. From these signs it is generally possible to estimate roughly the size of the infestation.

Infestations may be internal or external. In the latter case rats are found harbouring under low-built garages, poultry houses and other fixtures, or undermining is found in yards and passages and burrowing in banks of streams, and in tips.

Mice infestations are in many respects more difficult to deal with than those of rats, particularly in dwelling-houses. Their movements are more uncertain, and their habits resemble those of the black rat. They climb well, making use of such domestic furnishings as curtains, tablecloths, bed drapings, etc., and find harbourage behind skirting boards, round chimney breasts and behind cupboards and fixtures. They raid stocks of food, larders, food shelves, and food left on tables, destroying and contaminating food. They also destroy clothing and fabrics left in drawers, using them for nesting purposes.

The following table classifies premises on the basis of nature and degree of infestation :—

Classification of premises visited in response to complaints during 1949.

Premises Rat-infested						Number of Premises Mouse-Infested		Premises—No Visible Evidence of Infestation	
Internal		External		Category		Business Premises	Dwelling-Houses	Business Premises	Dwelling-Houses
Business Premises	Dwelling-Houses	Business Premises	Dwelling-Houses	Major	Minor	Business Premises	Dwelling-Houses	Business Premises	Dwelling-Houses
584	496	44	176	—	1,300	324	671	855	4,646
1,300						995		5,501	
7,796 (Total premises)									

Nature of Premises Infested.

It will be seen from the tables that dwelling-houses constitute the largest single group of infested premises, particularly in regard to mice infestation.

496 dwelling-houses were found to be infested internally and 176 externally by rats, whilst mice were present at 671. Dwelling-houses would appear to provide a greater attraction to rodents than business premises. A contributory cause may be that many of them are situated close to the industrial part of the City; also, due to present difficulty in effecting repairs, dilapidations and structural defects develop, providing access for rodents. To carry out the work necessary at such worn-out premises, would require nothing less than a complete rebuilding. The most that can be done in this type of property is to maintain a constant control over the infestation.

The majority of old-type dwelling-houses have no efficient means of protecting domestic food supplies, and this is another factor encouraging dwelling-house infestation.

It should also be mentioned that destruction measures are often made difficult in dwelling-houses owing to the danger of using poisons where children are about.

Shops, and premises where food is prepared, sold or stored, restaurants, canteens, etc., form the next largest group of infested premises, all these being instances where the problem of food protection is intensified.

Factories and workshops, where employees have snacks at the actual point of work, carelessly disposing of unwanted food and fruit, form another large group. Employees are frequently addressed by members of this staff, and circulars left for display, drawing attention to the dangers of careless disposal of food. In factories and workshops it is true to say that quite often infestation has been due to nests of young rats and mice found in packages and sacks of foodstuffs and other material.

The different types of premises infested are given in the following Table :—

Type of Premises	Number Rat-Infested		Number Mouse-Infested	No Evidence of Infestation	Totals
	Internal	External			
Dwelling-houses	496	176	671	4,646	5,989
Factories, workshops, workplaces ..	119	—	37	151	307
Shops	204	10	107	336	657
Premises where food is prepared, sold, stored	86	2	61	168	317
Warehouses	33	—	10	22	65
Offices	24	—	47	127	198
Restaurants, licensed premises, etc...	52	2	14	19	87
Hospitals, welfare centres, clubs, public institutions.. .. .	17	3	31	29	80
Schools	8	—	11	—	19
Churches, etc.	4	1	2	—	7
Cinemas, theatres	12	—	1	1	14
Garages, wooden structures	15	—	2	1	18
Farms, tips	4	26	—	1	31
Railway stations	1	—	1	—	2
Sewage disposal works, slaughter-houses	5	—	—	—	5
Totals	1,080	220	995	5,501	7,796

Causes of Infestation.

As previously pointed out, the location of the source of infestation is most important and necessitates the inspection of large areas of property. Cases could be quoted where the infestation of many premises has been due to a single water-closet being left unsealed, situated in some obscure part of the building, or to the stopper being missing from the rodding arm of an intercepting trap.

In such instances rats originate in the public sewers which, in this City, are of different sizes and constructions. There is always plenty of food to be found there—from kitchen waste, grease of all descriptions, edible scraps and so on. Rats live and breed in the sewers, particularly in dead ends, and use them as a means of passage. This also applies to disused drains of all kinds. Rats emerge from the sewers, burrowing into premises, undermining surfaces, gaining access to the surface, and so infest premises via structural defects. Fortunately, regular treatments are maintained in the public sewers, which help to keep the numbers of rats under control.

The following table classifies the causes of infestation :—

Classification of Causes of Rat Infestation in Premises Primarily Visited during 1949.

Cause	Rat-Infestation				Total Premises Rat- Infested	Percentage of Total Rat- Infestation	Premises Mouse- Infested
	Internal		External				
	Business Premises	Dwelling- houses	Business Premises	Dwelling- houses			
Directly due to or associated with defective or disused drains, sewers	97	98	6	66	267	20.46	—
Nature of business in premises or vicinity	194	44	30	—	268	20.62	229
Tips, refuse dumps, market areas..	26	22	4	14	66	5.08	40
Neglect in protecting food scraps, poultry kept t	63	28	—	11	102	7.84	154
Dilapidated premises, defects in structure	148	160	—	6	314	24.20	420
Building operations, demolitions ..	10	11	—	10	31	2.40	8
Vicinity of open or culverted water-courses, railway sidings	118	45	8	56	227	17.47	128
Dilapidations on war-damaged sites	—	16	—	9	25	1.93	16
Totals	656	424	48	172	1,300	100.00	995

The tracing of the cause of infestation, where there is undermining or burrowing in public highways and passages, cul-de-sac passages or private cellars and yards, is carried out under the supervision of the Executive Officers of this Section.

In these cases some sewer or drain defect in the working system, or alternatively some type of disused drain or sewer not effectively disconnected from the working sewer or drain, may be expected. In the case of the public highways the co-operation of the City Surveyor's Department, in the case of private premises, the co-operation of owners and agents of the affected premises, is enlisted.

One of the difficulties is to determine whether a presumed disused sewer is actually in use, particularly when it is found connected to the main working sewer and passes through basements of blocks of premises in the vicinity.

Most of the sewers are of small dimensions and usually constructed of brick, with the brickwork in bad condition and, in many cases, seeping water. The origin of this class of sewer cannot be traced, owing to the disturbance it would cause in the basements of the business premises affected, and the possibility of flooding when disconnected.

In other instances, owing to the worn-out condition of disused sewers located on examination, it cannot be ascertained in which direction they are falling.

Many other defects in sewers and drains are found on examination of burrowed or undermined surfaces, which, when remedied, clear up the infestation in the area in which they are situated.

The following table analyses drainage conditions found and action taken :—

Tracing of Rat Burrows in relation to Drainage Infestation.

Conditions found and action taken as a result of 123 Examinations as follows:	By City Engineer	By Owners and Occupiers	By Drainage and Sanitary Sections	Totals
Number of examinations made	76	29	18	123
Defective sewers reconstructed by Highways Department	1	—	—	1
Minor defects in sewers repaired	31	—	—	31
Disused privy midden drains removed	16	—	—	16
Other disused drains removed or otherwise dealt with	14	9	13	36
Defective drains remedied by owners and dealt with by Sanitary Section	—	6	27	33
Outward rat burrows consolidated	27	5	—	32
Surface rat burrows consolidated	3	9	—	12
Undermining due to causes other than rats ..	4	2	—	6
Defective sewers and drains repaired by Corporation at owner's expense	11	—	9	20
Totals	107	31	49	187

Rodent Control Survey.

The survey of the area under the control of the local authority, to discover location of infestation, continues, in accordance with the requirements of the Ministry, and appropriate action is taken, either by destruction measures, or advice to occupiers as to the methods best suited to the particular infestation.

In the case of slight infestations of mice, particularly in the terraced type of dwelling-house, occupiers are encouraged to co-operate in the work of destruction. In special circumstances a free treatment is sometimes carried out by this Department, but it will be obvious that to treat every single infestation of this character would seriously over-tax the resources of the Section. At the same time, in order that these infestations should be cleared up as quickly as possible, periodical revisits are made, to check progress and assist occupiers with advice.

All the surface infestations reported are in the "minor" category, but it is known that in certain areas of the City proper, particularly in the vicinity of culverted rivers and brook courses, and in market areas, premises are constantly liable to reinfestation.

Through periodical revisits and treatments, a large measure of control is maintained, and it may be noted that the "reservoir" and "major" types of surface infestation have practically disappeared.

The following table compares figures of premises found rat-infested on re-survey with premises rat-infested on the first survey :—

Ward	Premises Surveyed (Total)	Premises Rat-infested on first Survey	Premises Rat-infested on Re-survey, 1949	
			Business Premises	Dwelling- houses
Didsbury	8,997	16	1	9
Exchange	1,012	89	38	—
Gorton North ..	7,110	29	2	8
Gorton South ..	8,182	26	4	1
Harpurhey	4,965	44	—	5
Levenshulme ..	6,416	56	8	2
Moston	6,701	87	10	5
Newton Heath ..	5,570	66	8	38
New Cross	4,293	120	20	13
Openshaw	6,364	85	18	12
St. George's	6,263	24	7	5
Totals	65,873	642	116	98

Destruction Measures by Corporation Service.

The materials used are those approved by the Ministry, and the recommended technique entails pre-baiting, poison-baiting and post-baiting. Pre-baiting, preparatory to poison-baiting or trapping, is most essential in order to overcome the suspicions of the rodents, and gain their confidence by feeding them on the spots where it is later intended to destroy them. After a rest period the base bait and poison must be varied, to remove poison-prejudice. As will be readily recognised, even this technique is difficult to apply successfully in premises where other varieties of food are present.

It is laid down by the Ministry that the occupiers of business premises must pay for the Corporation Service. In premises where there are several occupiers, or where buildings are interconnected, it is necessary to obtain the co-operation of all the occupiers, in order to carry out comprehensive treatment. Generally speaking, after the position has been explained, the several occupiers sign an undertaking to pay their proportion of the cost, according to the operator's time and material used.

Charges are made for the treatment of dwelling-houses where it is deemed that the occupiers are able to pay the cost, or some proportion of it. As previously mentioned, a free treatment is sometimes given in special circumstances.

Destruction measures at refuse destructors, Corporation tips, local authority public service properties such as schools, sewage works, parks, welfare centres, etc., are financially assisted by the Ministry. Periodical inspections are made, and where reinfestation has occurred, further treatments are carried out.

It should be realised that there is a certain amount of danger entailed in the use of potent poisons in all classes of premises. Poison bait may be picked up by workpeople and taken home to destroy mice, for example, without the knowledge of the management, and, in dwelling-houses, the curiosity of children has to be overcome, and domestic pets safeguarded. All occupiers and workpeople are strictly warned not to touch, interfere with or remove any poison bait. This is a necessary risk which must be taken in order to carry out destruction work effectively, and naturally the Department cannot accept responsibility for lack of supervision exercised by occupiers.

The following table summarises the destruction measures carried out by the Corporation Service :—

During 1949, 1,448 treatments were carried out.

1,350 of these were carried out by means of poison ;
 36 by a combination of poisoning and trapping ;
 51 by trapping alone ;
 11 by gassing.

The following figures indicate number of premises treated, and number cleared of rats and mice :—

Type of Premises	Number Rat-infested	Number Mouse- infested	Number of Premises cleared of	
			Rats	Mice
Local Authority properties	39	118	1	12
Business premises	565	391	153	97
Dwelling-houses	129	206	42	66
Totals	733	715	196	175

Of 1,448 premises treated, 371 were cleared of rodents.

In the course of operations 137,217 baits were laid ; 26,612 of these were poison baits, of which 14,018 (52.7 per cent.) were taken.

Number of dead rats picked up 1,131
 Number of dead mice picked up 1,609
 Estimated kill (Ministry calculation) 29,917

Destruction Measures by Private Operating Companies.

This information is obtained through questionnaires to private operating companies and other individuals who are known to carry out destruction measures on contract for owners and occupiers at certain premises in the City. It is not always known in this Section which premises are being treated in this way ; consequently the work is not continuously supervised. Since the location of source of infestation does not come within the scope of private companies, no statutory powers being vested in them for this purpose, their activities are confined to routine baiting of premises, relying on some form of poison or virus, used at intervals over a contracted period. Under these circumstances no returns are obtained of premises cleared of rodents.

One operating company reports having laid 191,000 baits for rats and 800,000 mouse-baits in 1949, but there is no record of the number of baits taken, number of dead rodents picked up, or number of premises cleared. Another company, giving more information, records that 9,500 poison baits were laid, of which 1,500 were taken, resulting in a kill of 58 rats and 375 mice.

It will be seen that a representative picture of the rodents destroyed in the City cannot be obtained, owing to lack of information from these sources, and also due to the fact that all occupiers cannot be expected to report the result of their own efforts in the field of rodent destruction.

This large amount of poison-baiting carried out by private companies and occupiers is, however, of great value and assistance and must be materially contributing to the rodent control in the City.

Destruction Measures by other Corporation Departments and Nationalised Undertakings.

Apart from the maintenance treatments in public service properties of the Corporation, other departments and also nationalised undertakings co-operate in efforts to control infestation.

Premises such as generating stations, in close proximity to watercourses, markets, gas works and refuse destructors are always liable to infestation. Consequently destruction measures are carried out in such properties, between the visits of this Section's operators, minimising breeding and keeping infestation under control.

From various departments and nationalised undertakings it is reported that a total of 538 rats were destroyed in 1949, 1,204 poison baits being laid, of which 656 were taken.

Re-visits.

Frequent visits are necessary to check the efficiency of work carried out at premises where infestation has been discovered and appropriate measures have been taken. In this way re-infestations can be promptly dealt with, and occupiers advised of necessary proofing measures. Re-visits are carried out until there is no further visible evidence of infestation.

During the year the total number of re-visits made by operators to infested premises was 3,152.

Premises "written off" as clear of Infestation.

It will be noticed that 733 premises were treated for rat infestation during the year, of which 196 (26.7 per cent.) were subsequently cleared ; also 715 premises were treated for mice infestation, and of these, 175 (24.9 per cent.) were cleared.

In addition to these operations, occupiers who have not desired to employ the Corporation Service but have had the Section's advice, have carried out destruction measures, resulting in a clearance of infestation.

Extermination of Rats in Sewers.

This work is delegated to the City Surveyor's Department and is carried out by a special staff. Two maintenance treatments have been carried out during the year, the second one being modified as regards test baiting. The results are tabulated below :

Treatment	Number of manholes test-baited	Number of Manholes baited	Number of manholes showing takes
No. 1 Maintenance treatment ..	1,283	5,913	878
No. 2 Maintenance treatment ..	—	6,183	1,132
Totals	1,283	12,096	2,010

Survey of River Irwell.

During the year a combined operational survey and treatment of the River Irwell was carried out by all local authorities in whose areas the river is situated, that is, from the source to a point where it joins the Ship Canal. The survey of the length of the river which is situate within the boundary of the City was carried out in co-operation with the staff of the adjacent authority of Salford Corporation.

That portion of the river within the City boundary is enclosed by very high retaining walls and commercial buildings ; consequently the survey was carried out by traversing the river in a boat on two occasions. Several points of infestation were found on the first inspection, with a certain amount of harbourage under boulders and large stones. These were appropriately dealt with by gassing where this would be effective, and poisoning to offset any infestation which escaped the gassing treatment. No pick-up of dead rats was made, due to the level of the water rising and covering the land baited.

After a fall in the level, the second inspection was made, and treatment carried out. All the infested points were re-treated, and on re-inspection 15 dead rats were picked up. The estimated kill as result of poison take was 205 rats.

MILK CONTROL SECTION.

New legislation was introduced during the year and the work of this section of the Health Department is administered under the following Acts and Regulations :—

Milk and Milk Products ..	{	Food & Drugs (Milk & Dairies) Act, 1944.
		Milks (Special Designations) Act, 1949.
		The Milk and Dairies Regulations, 1949.
		The Milk (Special Designations) (Pasteurised and Sterilized Milk) Regulations, 1949.
		The Milk (Special Designation) (Raw Milk) Regulations, 1949
Ice Cream	{	Manchester Corporation (General Powers) Act, 1899, Section 18.
		Food and Drugs Act, 1938, Section 14.
		Ice Cream (Heat Treatment, etc.) Regs., 1947.

The Milk and Dairies Regulations, 1949 (made under the Food and Drugs (Milk and Dairies) Act, 1944), re-enact with amendments the Milk and Dairies Regulations, 1926 to 1943. The principal changes are that the Minister of Agriculture and Fisheries now becomes responsible for the registration of dairy farms and of persons carrying on or proposing to carry on the trade of dairy farmer. He is also responsible for the execution and enforcement of the Regulations on dairy farms (except in so far as they relate to diseases communicable to man). Local authorities retain responsibility for those provisions which apply outside dairy farms, for the registration of dairies which are not dairy farms and of dairymen who are not dairy farmers and for the provisions relating to diseases communicable to man.

The Regulations also include new provisions for the inspection of cattle on dairy farms by veterinary inspectors of the Ministry of Agriculture and Fisheries.

There are a number of minor changes in the Regulations relating to the distribution of milk and its protection against contamination and, in particular, provision is made for modern practices in dairy methods including the use of mechanical refrigeration for cooling and the use of approved chemical agents for the cleansing of vessels and appliances.

The Milk (Special Designations) (Pasteurised and Sterilized Milk) Regulations, 1949 (made under the Milk (Special Designation) Act, 1949) re-enact with amendments the Milk (Special Designations) Regulations, 1936 to 1948, so far as they relate to pasteurised milk, and provide for a new special designation "sterilised" milk. These regulations have been made jointly by the Minister of Health and the Minister of Food and are concerned only with the special designations of heat-treated milk. The Regulations also provide for the use of the special designations Tuberculin Tested Milk (Pasteurised) and Tuberculin Tested Milk (Sterilized). From 1st October, 1950, Pasteurised milk may only be sold in bottles or other containers which must be filled on the premises of a person holding a licence under these Regulations. From 1st October, 1954, the bottles or other containers must be filled at the pasteurised premises. Fees for all "special designated" milk licences have been dispensed with.

The Milk (Special Designation) (Raw Milk) Regulations, 1949 (made under the Milk (Special Designation) Act, 1949), re-enact with amendments the Milk (Special Designations) Regulations, 1936 to 1948, so far as they relate to raw milk.

These regulations, which now apply solely to raw milk as distinct from heat-treated milk, have been made jointly by the Minister of Health, the Minister of Agriculture and Fisheries, and the Minister of Food. They provide that licences to producers of raw milk to use the special designation "Tuberculin Tested" or "Accredited" shall be granted by the Minister of Agriculture and Fisheries, while the local authorities will continue to grant licences to dealers to use special designations in respect of such milk.

After 1st October, 1957, the special designation "Tuberculin Tested" may only be used in respect of milk from a herd which is on the register of Attested Herds, kept by the Minister of Agriculture and Fisheries and no application to use that designation will be granted after 30th September, 1954, unless the herd is registered as an Attested Herd.

After 1st October, 1954, the special designation "Accredited" will no longer be permitted to be used and no new application to use that designation will be granted after 30th September, 1952.

City Farms.

Up to the time of dairy farms passing out of the local authorities' control, there were 31 farms in the City with milch herds, including 2 producing "Tuberculin Tested" milk and 6 producing "Accredited" milk.

Bulk sampling of the milk (particularly at milking times) from each farm was carried out by the Milk Control Inspectors, in addition to periodical examination of the cattle by the Veterinary Inspectors of the Ministry of Agriculture and Fisheries. The conditions of production at these farms have been generally satisfactory. 31 samples were examined for cleanliness and 21 or 67.7 per cent. found to be satisfactory. In the case of the unsatisfactory samples, the farms were visited at milking time and advice given in the methods of clean milk production.

Country Farms.

The examination of milk supplied to the City from farms outside the boundary was carried out as in previous years although on a reduced scale. Individual samples of milk from 36 such farms were examined by the biological test for tubercle bacilli and 2 proved positive, giving an incidence rate of 5.6 per cent. as against 6.1 the previous year.

23 samples of milk from individual farms, examined bacteriologically, showed only slight improvement on previous years, 43.5 per cent. being unsatisfactory.

City Dairies, Milk Depots, etc.

The Milk Control Inspectors have paid over 4,000 visits to farm premises, dairies, and milk depots during the year. Generally speaking, the standard of cleanliness has been maintained at a high level. In no case was it found necessary to institute legal proceedings in respect of contraventions of the Milk and Dairies Regulations, although warnings were necessary in some instances.

The working and testing of the pasteurising and sterilising plants at the dairies licensed for these purposes have been carried out once monthly by the Milk Control Inspectors in addition to their routine visits.

Milk Supply to Hospitals and Schools.

Pasteurised milk supplied to certain hospitals and schools in the City has been strictly supervised and sampled. The results of the examinations have shown that a uniform high standard of quality and cleanliness has been maintained and on no occasion was the milk found to contain tubercle bacilli.

Samples of the raw untreated milk supplied to Booth Hall Hospital from the Langho Colony Farms have been examined frequently and, on the whole, found to be satisfactory. In no case has there been tuberculous infection.

On behalf of the Education Committee, a Milk Control Inspector has paid periodic visits to Oakwood Farm, which supplies Styal Cottage Homes with its milk, and samples of the milk have been taken for examination with excellent results. On no occasion was the milk found to contain tubercle bacilli.

Milk Sampling on behalf of the Ministry of Food.

The sampling of pasteurised, sterilised and other heat-treated milk has been carried out by the Milk Control Inspectors on behalf of the Ministry of Food. The results on the whole have been extremely good, 438 samples (98.0 per cent.) of the 447 samples taken having satisfied the prescribed tests, viz. :—the phosphatase test for efficiency of heat-treatment and the $\frac{1}{2}$ hour methylene blue test for keeping quality.

It would appear that in the last 3 years there has been a considerable speeding up of delivery of the milk from producer to dairyman and from dairyman to the consumer, as in only 2 instances was any complaint received from the public regarding premature souring of milk. This is mentioned inasmuch as in the year 1946 the Department received 109 such complaints.

Ice Cream.

The Ice Cream (Heat Treatment, etc.) Regulations, 1947, dealing with the heating and subsequent treatment of ice cream, became fully operative on the 1st May, 1949. Prior to that date ice cream manufacturers who had not installed apparatus for cooling the ice cream mix after heat treatment could, if charged with an offence of not having cooled the ice cream mix to a required temperature within a prescribed time, claim it a defence that suitable apparatus had been ordered before the date of the alleged offence. It is gratifying to state, however, that in no instance was it necessary to charge any of the manufacturers with such an offence. They had taken the necessary steps to get the apparatus installed well in advance of the Regulations becoming fully operative on the 1st May, 1949.

The number of premises registered for the manufacture and/or sale of ice cream continues to increase, there now being 1,105 such premises on the register, against 987 last year and 881 in 1946. The increase is confined to shops from which ice cream is sold but not manufactured. Set out in detail, these premises are registered as follows:—

Manufacture for sale (Pasteurised method)	.. .. .	85
Manufacture for sale (" Cold Mix " method)	.. .. .	77
Sale (in " loose " form)	.. .. .	414
Sale (in " wrapped " form)	.. .. .	529
Total	.. .. .	1,105

Conditions under which ice cream premises are registered follow the same general line as that adopted for dairies. Many shops, on account of the nature of the stock kept, have been permitted to sell ice cream in sealed packets only.

Regular visits of inspection have been made to ice cream premises and the general standard of cleanliness has been good.

Registrations for the sale of ice cream during the year have been mainly of premises equipped with totally enclosed automatic cabinet refrigerators, both for loose and wrapped ice cream, and the open "old-fashioned" ice tub, once so often seen in shops, is now a thing of the past.

The most unsatisfactory feature of the distribution of unwrapped ice cream is the sale from carts and barrows in the streets, as it is here that contamination of the product is most likely to occur. It is gratifying to state, however, that the majority of street vendors are co-operating with the Department and have had their vehicles almost totally enclosed so as to reduce the risk of contamination from dust and dirt from the street.

Legal proceedings were instituted against four persons for manufacturing and selling "water ices" on unregistered premises. Two of the persons were further proceeded against, one for allowing ice cream exposed for sale to be above the statutory maximum temperature of 28°F. and the other for using dirty equipment and utensils for the manufacture of "water ices" intended for sale. A conviction was obtained in each case, the total amount of fines imposed being £31.

At the request of the Parks and Cemeteries Department Sunday visits were paid to the City parks during the summer months and samples of ice cream were taken from ice cream vendors and submitted for bacteriological examination and chemical analysis. The results on the whole were quite satisfactory.

It is satisfactory to note that there have been no cases of infection reported to the Department during the year which could be traced to ice cream consumption.

Bacteriological and Biological Examination of Pasteurised, Sterilised, Heat Treated, and Raw Milks.

(1) PASTEURISED, STERILISED AND HEAT TREATED MILK

Place of Collection of Sample	BACTERIOLOGICAL, &c., EXAMINATION OFFICIAL TEST (Sample to pass a Phosphatase Test and ½-hour Methylene Blue Test)					BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI				
	No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Positive		Negative	
		No.	Percentage	No.	Percentage		No.	Percentage	No.	Percentage
Pasteurising plant at dairy	79	78	98·7	1	1·3	31	—	—	31	100
Hospitals	73	73	100·0	—	—	40	—	—	40	100
Schools	62	60	96·8	2	3·2	37	—	—	37	100
On road during distribution	312	305	97·8	7	2·2	32	—	—	32	100
Totals	526	516	98·1	10	1·9	140	—	—	140	100

(2) RAW UNTREATED MILK.

Place of Collection of Sample	BACTERIOLOGICAL EXAMINATION											BIOLOGICAL EXAMINATION FOR TUBERCLE BACILLI			
	GRADED MILK (TUBERCULIN TESTED AND ACCREDITED (sold as such))					UNGRADED MILK*									
	OFFICIAL TEST (sample to pass a Methylene Blue and B. Coli Test)					No. of samples examined	Satisfactory		Unsatisfactory		No. of samples examined	Positive		Negative	
	No. of samples examined	Satisfactory		Unsatisfactory			No. of samples examined	Positive		Negative					
		No.	Per- centage	No.	Per- centage	No.		Per- centage	No.		Per- centage	No.	Per- centage		
City Farms	14	11	78·6	3	21·4	17	10	58·8	7	41·2	30	1	3·3	29	96·7
Corporation Farms	14	12	85·7	2	14·3	—	—	—	—	—	30	—	—	30	100·0
Hospitals (supplied by Corporation Farms)	16	9	56·3	7	43·7	—	—	—	—	—	15	—	—	15	100·0
Mixed farmers from "tipping tanks" at pasteurising establishments . .	2	—	—	2	100·0	19	—	—	19	100·0	14	4	28·6	10	71·4
"Pool" tanker lorries coming into the City	2	1	50·0	1	50·0	3	—	—	3	100·0	3	1	33·3	2	66·7
On road during distribution . . .	8	3	37·5	5	62·5	—	—	—	—	—	2	—	—	2	100·0
Individual country farms (on arrival at City Dairies)	5	3	60·0	2	40·0	18	10	55·6	8	44·4	36	2	5·6	34	94·4
Totals	61	39	63·8	22	36·2	57	20	35·1	37	64·9	130	8	6·2	122	93·8

REPORT FROM MARKETS DEPARTMENT ON SUPERVISION OF MEAT AND OTHER FOODS.

The Medical Officer of Health is indebted to the General Manager of the Markets Department for the following particulars relating to the operations of the department during the year ended 31st March, 1949.

The number of animals slaughtered at the city abattoir during certain years is shown in subjoined statement "A."

The bulk of the meat, fish, and fruit which is condemned is found to be unfit for food on arrival at the markets, railway stations, and wholesale houses. An efficient system of inspection at the centre of distribution lessens the risk of diseased meat, etc., being exposed for sale in retail shops.

The staff of inspectors comprises 1 chief veterinary inspector, 3 assistant veterinary inspectors, and 10 meat, fish, etc., inspectors.

Statement "B" shows the total condemnations in the city and statement "C" the total weight of meat condemned at the city abattoir and wholesale meat market.

Statement "A."

Animals Slaughtered at City Abattoir during certain Years.

Year ended 31st March	Cattle	Sheep and Lambs	Calves	Pigs	Goats
1940	64,354	469,744	17,860	14,392	—
1941	50,998	323,382	32,745	28,230	—
1942	34,206	134,936	17,822	5,163	—
1943	38,127	188,523	41,752	2,404	—
1944	39,951	171,076	29,181	1,512	—
1945	42,927	172,276	18,305	1,477	—
1946	61,387	168,152	34,881	1,705	—
1947	64,061	233,675	46,701	1,385	—
1948	75,051	179,350	34,246	752	—
1949	58,645	208,725	39,447	2,659	1,223

Statement " B."

Total Condemnation of various Foodstuffs during 1940-49.

Kind of Food	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949
	tons	tons	tons	tons	tons	tons	tons	tons	tons	tons
Meat	724½	622	423¾	547	542	697	774½	821	852½	808
Fish	112½	79¾	176¾	163¾	112½	183	168½	190	387½	284
Fruit	87½	122½	19	18½	15½	28¾	10½	26½	144½	80
Vegetables	274¾	323½	313¾	183¾	100	366½	206	127	326½	131¾
Eggs (number) ..	108	47,201	49,299	575	1,200	120	718	384	946	40
Game (head) ..	1,182	1,340	607	976	165	728	1,079	223	156	524
Poultry (head) ..	17,848	12,574	10,350	8,102	5,756	8,429	3,855	5,129	2,812	6,465
Rabbits (head) ..	28,806	27,420	22,145	7,923	5,116	6,704	1,079	3,363	2,217	1,731

Statement " C."

Meat Condemned at the City Abattoir and Wholesale Meat Market.

Particulars	Year ended	
	31st March, 1948	31st March, 1949
Total weight of meat condemned at the city abattoir and wholesale meat market	Tons 835½	Tons 788
Of which the weight of dressed meat consigned from places other than the city was	24½	20½
Included in which were imported offals amounting to ..	¾ cwt.	½ ton

Unwholesome Food Condemned.

Kind of Food	Year ended	
	31st March, 1948	31st March, 1949
MEAT :—	lbs.	lbs.
Beef	1,834,602	1,714,764
Mutton	20,317	36,323
Veal	23,043	27,069
Horseflesh	16,221	2,068
Pork	15,356	26,225
Beaver	129	—
Imported offal	—	648
Goatflesh.. .. .	—	3,041
	1,909,668 = 852½ tons	1,810,138 = 808 tons
FISH :—	lbs.	lbs.
Fish	807,512	584,047
Shellfish	59,829	52,047
	867,341 = 387½ tons	636,094 = 284 tons
GAME	head 156	head 524
POULTRY.. .. .	2,812	6,465
RABBITS	2,217	1,731
FRUIT	lbs. 323,598 = 144½ tons	lbs. 179,161 = 80 tons
VEGETABLES	731,507 = 326½ tons	294,949 = 131¾ tons
MISCELLANEOUS :—	No.	No.
Eggs	946	40
Evaporated, condensed and other canned Milks..	lbs. 14,800	lbs. 12,896
Sundry Provisions	97,571	102,802

With the exception of the following, which were seized while deposited or exposed for sale, the quantities given in the preceding tables were surrendered after being condemned by inspectors of the department :—

Kind of Food	Year ended	
	31st March, 1948	31st March, 1949
	lbs.	lbs.
Meat	—	—
Fish	9	1
Fruit	—	29
Sundry provisions	—	717
Rabbits	—	2

NOTE.—The term “ surrendered ” includes cases in which inspectors have discovered unwholesome food in the course of their duty, but in which, owing to the salesman’s acceptance of the inspector’s decision, it has been deemed unnecessary to obtain a magistrate’s order prior to destruction.

Carcases—Inspection and Condemnation.

Year ended December, 1949.

	Number killed and inspected					
	Cattle		Calves	Sheep and Lambs	Pigs	Goats
	Except Cows	Cows				
At City Abattoir	47,410	22,228	41,381	219,271	3,090	3,133
Brought into City after killing and inspected	1,981		139	Nil	1,322	Nil

Whole carcasses condemned—all diseases except tuberculosis

At City Abattoir	33	Not known	457	202	49	118
Brought into City after killing	3		Nil	Nil	2	Nil

Carcases of which some part or organ was condemned—all diseases except tuberculosis

At City Abattoir	8,625	Not known	154	2,016	553	499
Brought into City after killing	21		Nil	Nil	4	Nil

Percentage of the number inspected affected with disease other than tuberculosis

At City Abattoir	12.4	1.5	1.0	19.5	19.7
Brought into City after killing	1.2	—	—	.45	—

Tuberculosis only.*Whole carcasses condemned*

At City Abattoir	106	1,384	86	Nil	19	Nil
Brought into City after killing	1		Nil	Nil	Nil	Nil

*Carcases of which some part or organ was condemned**Year ended December, 1949.*

At City Abattoir	2,826	8,500	35	Nil	391	Nil
Brought into City after killing	3		Nil	Nil	1	Nil

Percentage of the number inspected affected with tuberculosis

At City Abattoir	6.2	44.5	.3	Nil	13.3	—
Brought into City after killing	0.2		Nil	Nil	0.08	—

NOTE.—Carcases brought into the City, having been inspected at place of slaughter, the incidence of condemnations bears no relation to condemnations of country-dressed meat prior to 1940 when control by Ministry of Food was commenced. There is no meat marketing scheme under Part III of the Public Health (Meat) Regulations, 1924, in force in the City.

HOUSING SURVEY SECTION.

By Arthur Moss, M.R.San.I., Senior Housing Inspector.

STAFF.

Senior Housing Inspector.
Assistant Senior Housing Inspector.
8 Housing Inspectors.
6 Clerks and typists.

At present there is a deficiency of 5 Housing Inspectors. Seven temporary visitors are engaged on work in connection with the overcrowding provisions of the Housing Act, 1936.

Clearance Areas and Individual Unfit Houses.

Housing Act, 1936, Sections 25 and 11.

The operation of Clearance Area work is still limited by the Minister of Health's circular 1866 (Postponement of Works Order).

On 31st December, 1948, there were 142 dwellings in the Oldham Road (New Cross) Clearance Area Number 17 awaiting demolition. This work has since been carried out satisfactorily.

In the Clearance Areas confirmed by the Ministry but not completed, there is one dwelling-house in the Miles Platting area, and one in Broom Lane Area yet to be demolished. In the Oldham Road Number 2. Area one family remains to be rehoused and two dwelling-houses to be demolished. In New Cross Clearance Area 35 houses have been vacated during the year from which 33 families were rehoused by the Corporation and 2 families moved to accommodation in private ownership; this completes the rehousing programme for this area. 70 houses were demolished leaving now only 7 unoccupied houses to be dealt with.

There are nine Clearance Areas awaiting confirmation by the Ministry of Health. From these areas 40 dwelling-houses have been vacated during the year and 52 families moved of which 39 were rehoused by the Corporation; the remaining 13 families found their own accommodation. 30 houses in these areas were demolished during that period. There now remain 3,300 houses to be demolished and 3,398 families to be rehoused.

The St. John's Clearance Area was inspected and evidence prepared for representation when the Postponement of Works Order prevented further action. This area contained 615 houses in which there were 671 families. Owing to war damage and removals from time to time there are now in the area only 397 dwelling-houses to be vacated containing 489 families, and 445 houses to be demolished. 19 of the houses demolished were dealt with as individual unfit houses and a further 6 at present vacated have yet to be demolished under the same section of the Housing Act. During the year 9 families were moved from 8 dwelling-houses and 2 houses demolished.

In advance of the Ministry's confirmation it has been necessary during the year because of dangerous conditions in the areas represented but awaiting confirmation, to deal with 51 houses as individual unfit houses under Section 11. In addition similar action was taken in regard to 263 houses not in clearance areas. 28 families found their own accommodation and in 306 cases it was provided by the Corporation. Up-to-date 1,262 houses have been demolished, whilst 25 have been bricked up to prevent access and to act as protection to adjoining houses which might be imperilled by their demolition. There are 165 houses scheduled as individual unfit houses yet to be demolished.

During the year 212 houses in confirmed clearance areas and 275 houses of which 30 were in clearance areas not yet confirmed by the Ministry were demolished.

The number of families displaced during the year under Clearance Orders and Demolition Orders totalled 380, of which 342 were rehoused by the Corporation and 38 found their own accommodation. There are in all 3,935 families yet to be rehoused from property represented as unfit under these orders.

Details in respect to the figures quoted will be found in the accompanying table.

Abatement of Overcrowding.

Housing Act, 1936. Section 58, etc.

During the past year the survey of the overcrowding position was continued by the special temporary staff retained for this work. Our records for the year show 359 new cases of overcrowding and 244 cases where the overcrowding has been abated, making the total number of overcrowded cases 1,668 compared with 1,553 cases at the end of 1948. The attention of the Director of Housing has been drawn to these cases with a view to priority of consideration in rehousing.

An analysis of the present position is as follows :—

Overcrowded houses—	Families	Adults	Children
1,265 containing 1 family	1,265	7,440	2,384
321 „ 2 families	642	2,329	664
78 „ 3 „	234	558	134
4 „ 4 „	16	71	22
<hr/> 1,668	<hr/> 2,157	<hr/> 10,398	<hr/> 3,204

Abatement of Overcrowding during 1949.

	Families	Adults	Children
From privately-owned houses :—			
Rehoused by Corporation	82	335	123
To privately-owned houses	127	498	128
By reduction in family	19	64	28
From Corporation houses :—			
Rehoused by Corporation	1	2	Nil
To privately-owned houses	14	47	11
By reduction in family	1	1	Nil
Total abated during 1949	244	947	290

These figures show that there are 1,265 families occupying houses too small for them and 403 houses overcrowded by lodger families. Of the 244 cases of overcrowding abated, 83 of them were rehoused by the Corporation.

The following table is set out in the form required by the Ministry of Health :—

(a)	(i) Dwellings overcrowded at the end of 1949	1,668
	(ii) Families dwelling therein	2,157
	(iii) Persons dwelling therein	13,602
(b)	New cases of overcrowding notified during the year ..	359
(c)	(i) Cases of overcrowding relieved during 1949	244
	(ii) Persons concerned in such cases	1,237
(d)	Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	Nil

Eradication of Vermin, etc.

Public Health Act, 1936. Sections 83—85.

(A) *Vermin infested premises* (Public Health Act, 1936, Section 83).

During the year 828 complaints of bug infestation were received of which 11 applied to business premises and 817 to dwelling-houses.

639 of the complaints came from the tenants of Corporation houses. 584 of these were treated with a DDT solution, the remaining 55 are being dealt with or will be dealt with early in the new year.

178 of the complaints applied to private houses, 22 of which were fumigated with HCN, 5 with DDT, 1 with a proprietary compound and the remaining 150 by the tenants. The majority of the latter cases showed light infestation and received insecticide spraying and washing applied in accordance with methods advised by the Housing Inspectors.

Eight business premises were fumigated with HCN, two by DDT, and the remaining one by insecticidal spraying.

In accordance with the requirements of the Ministry, a summary of the work done is set out in the following table:—

Premises found to be verminous	Control measures advised	Fumigation with HCN	Other methods of treatment
Privately-owned houses:			
Minor infestations ..	136	6	1 DDT. 1 Proprietary compound. 128 Insecticidal spraying.
Serious infestations ..	42	16	4 DDT. 22 Insecticidal spraying.
Corporation houses	639	—	584 DDT. 55 yet to be treated.
Business premises:			
Minor infestations ..	3	—	2 DDT. 1 Insecticidal spraying.
Serious infestations ..	8	8	
Totals	828	30	591 DDT 152 Other methods 55 Yet to be treated

Clearance Areas Progress Report, 1933-1949.

Area	Number of Houses in Area	Houses Vacated		Balance Outstanding to be Vacated	Houses Demolished		Balance Outstanding to be Demolished	Number of Families in Area	Families Moved to Dec., 1948			Families Moved during 1949			Balance Outstanding Families to be Rehoused
		Total to Dec., 1948	During 1949		Total to Dec., 1948	During 1949			By Corporation	Own Account	Total	By Corporation	Own Account	Total	
Clearance Areas confirmed and completed	6,406	6,406	—	—	6,406	—	—	7,030	5,389	1,641	7,030	—	—	—	—
Oldham Road (Now Cross) Area 17	142	142	—	—	—	142	—	143	26	117	143	—	—	—	—
	6,548	6,548	—	—	6,406	142	—	7,173	5,415	1,758	7,173	—	—	—	—
Clearance Areas confirmed but not completed—															
Miles Platting	688	688	—	—	687	—	1	692	584	108	692	—	—	—	—
Oldham Road II.	8	7	—	—	6	—	2	8	6	1	7	—	—	—	1
Broom Lane	12	12	—	1	11	—	1	3	—	3	3	—	—	—	—
New Cross	1,787	1,752	35	—	1,710	70	7	1,727	1,227	465	1,692	33	2	35	—
	2,495	2,459	35	1	2,414	70	11	2,430	1,817	577	2,394	33	2	35	1
Clearance Areas represented but not confirmed—															
Bradford Road	1,841	518	11	1,312	466	6	1,369	1,948	97	431	528	7	5	12	1,408
St. George's	1,183	359	17	807	316	20	847	1,179	49	262	311	17	5	22	846
Hutchins Street	61	17	—	44	17	—	44	62	14	3	17	—	—	—	45
Harpurhey	284	8	—	276	—	—	284	299	—	—	—	—	—	—	299
Monday Street	45	18	—	27	17	—	28	70	7	17	24	2	1	3	43
Enoch Street	31	—	—	31	—	—	31	32	—	—	—	—	—	—	32
Ruth Court	11	7	—	4	7	—	4	14	—	10	10	—	—	—	4
Fog Lane	10	1	—	9	—	—	10	9	—	—	—	—	—	—	9
Oldham Road (New Cross) Areas 1 to 16 ..	786	144	12	630	99	4	683	844	12	105	117	13	2	15	712
	4,252	1,072	40	3,140	922	30	3,300	4,457	179	828	1,007	39	13	52	3,398
Clearance Areas inspected but not represented—															
St. John's	615	210	8	397	167	3	445	671	13	161	174	8	—	8	489
Individual unfit houses not in clearance areas ..	1,183	883	257	43	812	242	129	1,192	748	112	860	262	23	285	47
Totals	15,093	11,172	340	3,581	10,721	487	3,885	15,923	8,172	3,436	11,608	342	38	380	3,935
Houses dealt with as individual unfit houses—															
(a) Not in clearance areas	1,183	883	257	43	812	242	129	1,192	748	112	860	262	23	285	47
(b) In clearance areas:															
Bradford Road	120	113	7	—	113	3	4	112	99	6	105	7	—	7	—
St. George's	71	51	17	3	46	15	10	76	51	5	56	16	1	17	3
Hutchins Street	15	15	—	—	15	—	—	15	14	1	15	—	—	—	—
Oldham Road (New Cross)	31	12	12	7	12	4	15	32	11	2	13	10	3	13	6
St. John's	25	17	8	—	17	2	6	26	13	4	17	9	—	9	—
Monday Street	7	6	—	1	6	—	1	13	7	—	7	2	1	3	3
Totals	1,452	1,097	301	54	1,021	266	165	1,466	943	130	1,073	306	28	334	59

(B) *Furniture and Effects* (Public Health Act, 1936, Section 84).

Contracts are placed each year with a removal contractor and a fumigator so that tenants removing from a vermin infested house to a Corporation house or privately owned house can have their furniture fumigated with HCN before transfer to the new house.

The cost is met by the Corporation when the removals are effected from clearance areas and individual unfit houses. Tenants from overcrowded houses are requested to pay 40s. towards the cost of removal and a similar charge is made to other tenants moving to Corporation houses from houses outside the "clearance" or "individual unfit house" classes. Other tenants moving from one private house to another are asked to pay the full removal cost. In all cases the fumigation is carried out by the contractor at Monsall Disinfecting Station at the expense of the local authority in accordance with Section 84.

The removals effected during the year are as follows:—

From individual unfit houses and clearance areas to Corporation houses	303
From houses outside clearance areas to Corporation houses ..	Nil
From overcrowded houses to Corporation houses	33
Fumigation and removal to private houses	Nil

In addition there were 10 cases where mattresses or bedding infested with vermin were fumigated.

The number of tenants who accepted the facilities to attend Monsall Disinfecting Station to have their personal clothing cleansed whilst their furniture was being fumigated was 49 adults and 55 children. Where tenants did not take advantage of this service the bedding van called at their new address on the morning after the removal to collect their personal clothing for disinfection.

Applications for rehousing on grounds of ill health.

A number of families, registered with the Housing Department, claim priority in rehousing on grounds of ill health. During the year 1,741 cases of this nature were considered. The conditions under which the family is living are taken into account together with any medical evidence in support of their claim. Where substantiated a medical category of priority is awarded and the Director of Housing notified accordingly. Sixty per cent. of the claims submitted warranted a degree of priority.

"Share your Homes" Scheme.

13 applications for the registration of rooms under the scheme were investigated; 10 of these were registered and 3 were withdrawn. The total number registered to date is 172.

Billeting of Workers.

The billeting of workers coming to the City for employment is still carried out by the permanent staff as requests are received. This is in accordance with the Ministry of Health's request for local authorities to continue the service. Throughout the year only 8 requests for board and lodging were received. These applicants were satisfactorily accommodated in existing billets.

Temporary Staff.

The duties required under Section 57 (2) of the Housing Act, 1936, in respect to the abatement of overcrowding, involve not only visiting houses scheduled as overcrowded but also to ascertain any additional overcrowding existing in the district. To carry out this work a systematic survey of the City is being carried out by the staff of 7 temporary employees retained for the purpose, 5 of whom carry out the investigations and 2 are employed on recording and statistics. During the year details in respect of families living in 47,373 houses visited by this staff have been recorded, making a total since the survey commenced of 89,201 houses visited and occupied by 292,412 people.

REPORT OF THE NURSING ORGANISER.

(Miss W. M. L. Selmes, S.R.N., S.C.M., D.N.)

The Nursing Office was established in 1945 in the Health Department and is at present centred in Room 306, Town Hall Extension. During 1949 the office has been diligently employed in activities pertaining to all branches of nursing, and it is interesting to note that over 1,000 enquiries have been received in the office, of which approximately 900 have been personal interviews.

- 100 of these under 18 years of age have attended for advice on nursing as a career and have been directed to Pre-Nursing Courses or assisted in possible ways of "bridging the gap" until eligible for training.
- 40 of the above were referred to the Assistant Medical Officer of Health for Day Nurseries as Student Nursery Nurses, Assistant Nursery Nurses, etc.
- 7 to junior clerks posts in the Health Department.
- 67 State Registered Nurses with other specialist qualifications have been referred to the Immunisation, Whooping Cough Research and Epidemiology Sections as Special Investigators.
- 3 to the Mental Health Section.
- 3 to the Midwifery Section.
- 12 to the Maternity and Child Welfare Section, for vacancies in Clinics, Tuberculosis Department, temporary Health Visitors, etc.
- 4 recommended for the Student Health Visitors Course.
- 10 referred to Queen's District Nursing Association, as qualified Queen's Nurses or to take the training as students for the Home Nursing Service.
- 10 referred to Home Help Section.

Many of the enquirers to the office were found employment outside the Health Department as follows :—

- 38 as Student Nurses.
- 16 ex-Service men holding suitable qualifications were assisted with their applications to the Ministry of Health, London, for approval for Intensive Training.
- 5 potential Sister Tutors were interviewed and recommended to the City Hospitals for teaching posts.

Enquiries are also received for advice on careers on Radiography, Physiotherapy, Occupational Therapy, Industrial Nursing, His Majesty's Services, etc., and as a result of information compiled in the office these people are, after consultation, directed to the Training Schools of their choice in Manchester and elsewhere.

The advice of the Nursing Organiser is still sought on scales of salary, terms of service, scholarships, bursaries and personal problems and confidential advice is given.

Nursing advice and assistance for sick persons of the household which cannot be dealt with under Home Help are assisted by recommendation to Home Nursing Service, Private Nursing Homes, Nursing Agencies and to retired members of the nursing profession who are willing to give part-time nursing service.

Since the transfer of the hospital services and the Civil Nursing Reserve, of which there were over 4,000 members, we are constantly requested for information, recommendations, references, etc., relating to their previous service.

Hospital Matrons and Sister Tutors request the assistance of the Nursing Organiser for the arrangement of educational visits to the Corporation Services, e.g., Refuse Disposal Plants, Rivers Department, Sewage Disposal Works, Central Libraries, etc.

Sister Tutor Course, Manchester University.

The Nursing Organiser is Hon. Sister Tutor and Special Lecturer in History of Nursing and Principles of Teaching as applied to the practical work of the Sister Tutor, is a member of the Selection Committee and is also Assistant Examiner for the Sister Tutor Course.

The Nursing Exhibition.

Sections are maintained at the Juvenile Employment Bureau and the Nursing Appointments Office, and some are on loan to the Education Department for the Grammar and Secondary Schools for their display on careers at the end of term.

Pre-Nursing Courses.

The part-time nursing course covering two years continues since 1949 at Whitworth Street Evening School, and the Nursing Organiser continues to assist with the curriculum, including visits to the Manchester Corporation Departments, Libraries, City Hospitals, etc. The Nursing Organisation Office continues to co-operate with the Education Department in the maintenance of Pre-Nursing Courses for girls, and during the past year has directed to them part-time Sister Tutors.

The Nursing Organiser continues to represent the Health Department on the Manchester and Salford Secondary Grammar School for Girls Employment Committee and attends regularly the meetings which are held in the Education Offices, Deansgate.

Liaison continues with the following bodies :—

Juvenile Employment Bureau.

The Appointments Office.

Ministry of Labour.

Film Council for the North-West Region.

East Lancashire Joint County Committee for the British Red Cross Society and Order of St. John of Jerusalem.

Industrial Nurses' Discussion Group.

Central Office of Information.

The office has arranged inter-departmental visits and lectures for students from Colleges and Universities, taking courses for Diplomas and Certificates, also International Nursing Students, visitors to Manchester.

Lectures given by the Nursing Organiser have been to Townswomen's Guilds at Flixton, Gatley and Stockport, also to detachments of the British Red Cross Society.

VENEREAL DISEASES.

Treatment of mothers and children for venereal diseases has continued at two maternity and child welfare centres by arrangement with the Manchester Regional Hospital Board. The following table shows in detail the work done during the year, and it will be seen that the total attendances were 5,175.

New patients attending numbered 615, and of these 69 were found to be infected with one of the venereal diseases—

Syphilis—males 6, females 42.

Gonorrhoea—males 0, females 21.

Penicillin treatment was given to 19 patients.

Follow-up of Defaulters.

The follow-up of defaulters from any clinic in the City is carried out by a health visitor not in uniform, when this is requested, and the result of the visit is sent to the appropriate authority.

Where necessary, repeated visits are paid until attendance is achieved. For the patient who is working, evening visits are essential. In some cases the health visitor arranges to call for patients and accompany them to the clinic. This is usually only necessary for a first visit or with a nervous defaulter who is reluctant to return for treatment after failing to keep appointments.

63 primary and 359 subsequent visits, a total of 422, were paid during the year. The total includes 60 evening visits.

Contact Tracing.

Efforts are made to get every possible contact to attend a clinic. Contact cases, referred from various sources, are often impossible to trace, due to the inadequate information available.

		Syphilis		Gonorrhoea		*Other Conditions		Totals		
		M.	F.	M.	F.	M.	F.	M.	F.	Totals
Number of patients on 1st January under treatment or observation		15	138	—	15	14	75	29	228	257
Number of patients removed from the register during any previous year which returned during the year under report for treatment or observation of the same infection .. .		—	5	—	—	—	—	—	5	5
Number of patients dealt with for the first time during the year under report (exclusive of those under Item 4) suffering from :—										
(a) Syphilis, primary .. .		—	—	—	—	—	—	—	—	—
(b) „ secondary .. .		—	13	—	—	—	—	—	13	13
(c) „ latent in 1st year of infection† .. .		—	—	—	—	—	—	—	—	—
(d) „ cardio-vascular* .. .		—	—	—	—	—	—	—	—	—
(e) „ of the nervous system* .. .		—	—	—	—	—	—	—	—	—
(f) „ all other late or latent stages* .. .		1	20	—	—	—	—	1	20	21
(g) „ congenital (under 1 year) .. .		4	4	—	—	—	—	4	4	8
(h) „ „ (over 1 year) .. .		1	5	—	—	—	—	1	5	6
(i) Gonorrhoea .. .		—	—	—	21	—	—	—	21	21
Other conditions	(j) Chancroid .. .	—	—	—	—	—	—	—	—	—
	(k) Lymphogranuloma inguinale .. .	—	—	—	—	—	—	—	—	—
	(l) Granuloma venereum .. .	—	—	—	—	—	—	—	—	—
	(m) Any other conditions requiring treatment .. .	—	—	—	—	3	145	3	145	148
	(n) Conditions not requiring treatment .. .	—	—	—	—	112	286	112	286	398
(o) Conditions remaining undiagnosed at 31st December .. .		—	—	—	—	—	—	—	—	—
Number of patients dealt with for the first time who have been transferred from other Centres (civil or Service) or from practitioners approved under Ministry of Health Circular 2226 .. .		5	22	—	—	—	—	5	22	27
Totals of Items 1, 2, 3 and 4 .. .		26	207	—	36	129	506	155	749	904
Number of patients suffering from syphilis and gonorrhoea discharged after completion of treatment and final tests of cure, or who were diagnosed as "other conditions" .. .		3	16	—	13	101	443	107	472	579
(a) Number of patients who ceased to attend before completion of treatment and were suffering from :—										
(a) Acquired syphilis of less than 1 year's duration .. .		—	1	—	—	—	—	—	1	1
(b) Acquired syphilis of more than 1 year's duration .. .		—	23	—	—	—	—	—	23	23
(c) Congenital syphilis (under 1 year) .. .		1	—	—	—	—	—	1	—	1
(d) „ „ (over 1 year) .. .		1	4	—	—	—	—	1	4	5
(e) Gonorrhoea .. .		—	—	—	—	—	—	—	—	—
(b) Number of patients under treatment or observation known to have died :—										
(a) From syphilis .. .		—	—	—	—	—	—	—	—	—
(b) From treatment .. .		—	—	—	—	—	—	—	—	—
(c) From other causes .. .		—	1	—	—	—	—	—	1	1
Number of patients suffering from :—										
(a) Syphilis who defaulted after completion of treatment, but before final discharge .. .		—	2	—	—	—	—	—	2	2
(b) Gonorrhoea who defaulted before 3 months .. .		—	—	—	3	—	—	—	3	3
(c) Gonorrhoea who defaulted after 3 months .. .		—	—	—	6	—	—	—	6	6
Number of patients transferred to other Centres or Institutions or to private practitioners .. .		1	8	—	—	—	—	1	8	9
Number of patients remaining under treatment or observation on 31st December .. .		20	152	—	14	25	63	45	229	274
Totals of Items 5, 6, 7, 8, and 9 .. .		26	207	—	36	129	506	155	749	904
Number of patients included in Item 6 who failed to complete one course of treatment of either penicillin or of arsenic and bismuth and were suffering from :—										
(a) Acquired syphilis of less than 1 year's duration .. .		—	—	—	—	—	—	—	—	—
(b) Acquired syphilis of more than 1 year's duration .. .		—	4	—	—	—	—	—	4	4
(c) Congenital syphilis of less than 1 year's duration .. .		1	—	—	—	—	—	1	—	1

	Syphilis		Gonorrhoea		Other Conditions		Totals		
	M.	F.	M.	F.	M.	F.	M.	F.	Totals
11. Number of attendances :—									
(a) for individual attention by the medical officer(s)	357	2,957	—	241	343	1,277	700	4,475	5,175
(b) for intermediate treatment, e.g., dressings, etc.	—	—	—	—	—	—	—	—	—
Total attendances	357	2,957	—	241	343	1,277	700	4,475	5,175

	Under 1 year		1 and under 5 years		5 and under 15 years		15 years and over		Totals	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
12. Number of patients suffering from congenital syphilis in Item 3 above classified according to age	4	4	—	2	1	—	—	3	5	9

	Microscopical		Cultural	Serum		Cerebro-spinal fluid	Others
	for Syphilis	for Gonorrhoea		for Syphilis	for Gonorrhoea		
13. Pathological work :—							
(a) Number of specimens examined at, and by the Medical Officer of, the Treatment Centre	—	—	—	—	—	—	—
(b) Number of specimens from patients at the Treatment Centre sent to a pathological laboratory	—	793	—	1,178	190	—	—

	Syphilis (less than 1 year)		Syphilis (more than 1 year)		Gonorrhoea		Other Conditions	
	M.	F.	M.	F.	M.	F.	M.	F.
14. Contacts attending for examination through the agency of :—								
(a) Patients	—	—	—	—	—	—	—	—
(b) Health visitor or Social Service worker...	—	—	—	—	—	—	—	—
Totals	—	—	—	—	—	—	—	—

* In order to avoid duplication, patients with cardio-vascular syphilis who are also suffering from syphilis of the nervous and/or other systems should be recorded as suffering from cardio-vascular syphilis alone.

† " Syphilis, latent in first year of infection," applies to cases presenting no clinical sign of syphilis but considered (by blood tests, etc.) to have contracted this disease within the preceding 12 months.

HEALTH EDUCATION.

The tendency for Health Education to become more active throughout the country is now definite. Although over short periods, results are apparently small, there is no doubt that concerted action by research and social workers, by Education and Health Authorities (viewed against the background of earlier generations) is making a very important contribution towards an improved level of general well-being and happiness.

Medical research discoveries need to be interpreted to the people so that useful application can be effected, but health teaching must aim at creating an attitude of mind rather than the memorising of factual data.

Every aid therefore should be used to this end. The appeal must be presented to the visual and oral senses, to logic and to the emotions. Reading matter alone is insufficient; lectures and talks do not reach everyone, but these, along with the work of the school, the Health Centre, the Health Visitors, and the various inspectors, are essential.

It is said that no one is particularly interested in the subject of health until they are in imminent danger of losing it. This may be true, but if people are provided with an immediate goal, e.g., a well-developed physique, a faultless complexion, the ability to excel in games, to have the best baby in the district, they will show interest, and it is by way of such "goals" that Health Education gets its opportunities to promote the desire for "Positive Health."

With these thoughts always in mind, the City's health education activities are continuous, and a resume of the work during 1949 is set out, not in pride of achievement, but as a sketch of the general direction along which, further development will gradually emerge.

There has been a slight increase in the number of health talks requested by organisations. The Medical Staff provided 13 of these, and 31 talks were given by members of the senior administrative and technical staff. These figures do not include the lectures given to students engaged on technical training and refresher courses.

As indicated in the previous report, the new booklet, "Family Welfare Service" has now been published. This booklet explains, very simply, means of obtaining the guidance and help in family difficulties and personal problems, which is now available at the two special centres in Ardwick and Wythenshawe. Evidence of the widening interest in this innovation is shown by the requests for copies which have been received from social science and other students, from hospital almoners, and from lecturers in subjects related to industrial health and welfare. The Health Visitors are provided with copies for use where such a need appears to be indicated.

The booklet "Advice to Parents on Infectious Diseases in Children," which went out of print in 1940, has now been revised, enlarged and republished. It has been designed as a guide to the adequate home nursing of children suffering from those illnesses or those who may have been in contact with possible infection.

A handbook-guide has also been issued during the year, on the City's Schemes under the provisions of Part III. of the National Health Service Act, 1946. This publication sets out precisely the Services (and developments anticipated) which Manchester has made available, relative to health and well-being in the home, vaccination and immunisation, and the ambulance services. It is not intended to supersede the City's "Brief Guide to the Health Services," which is designed for general use. It is, however, useful to the officials of numerous bodies, to students and social science workers, and to all who are specially interested in this aspect of local government. Copies are available, on request, from the Medical Officer of Health.

Pamphlets on specialised subjects and the monthly magazine "Better Health," continue to be circulated through centres and other sources, and health propaganda has been included in several local publications.

The co-operation of the Inspectorial staff in Health Education is most effective and not least in the supervision of kitchens in hotels, restaurants, and canteens. The risks of food contamination and the importance of personal hygiene is continually being stressed, and it is satisfactory to note that there is a definite tendency to improved conditions after advice or warnings have been given by the inspectors.

The Health Visitors are naturally "health education officers" of tremendous importance, carrying as they do the message of "health behaviour" into the homes of the people. Over 3,000 home visits weekly are made by the visitors, and it is certain that this work must have a vital effect upon the general attitude to health.

Help by the department was extended in the matter of exhibition material to the Health Education Conference in London, and the students of Risley Training College were also advised and helped in a three-day exhibition held at the college. The Civil Service Clerical Association in the City was also helped in a "coughs and sneezes" campaign.

Foreign visitors seeking information on the City's various activities towards social health much appreciated the visits arranged to Occupation and Welfare Centres, Day Nurseries and the Tuberculosis Centre.

Representatives from other public, philanthropic, voluntary and educational organisations expressed appreciation of the information provided through personal contact with the department.

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B Population for calculating Birth-rates.
D Population for calculating Death-rates.

